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RICHARD H. EDMONDS, President.
THOMAS P. GRASTY, Vice-President.

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COPY FOR ADVERTISEMENTS.

Advertising copy (changes or new advertisements) should reach us Saturday Morning to insure insertion in the issue of the following week.

For the first issue in the month we should receive copy by Friday Morning of the week preceding.

THE VOICE OF THE PEOPLE.

Seldom has the People been shown more clearly how it gets its Voice than in the manipulation of the anti-trust measure by the late legislature of Louisiana. We alluded last week to the buncombe connected with the burial of the bill on the Fourth of July by the House of Representatives. It seems, however, that Senatorial courtesy resented the fact that the upper House of the legislature had not been a party to the burial, so the bill was resurrected and solemnly carried into the cheering Senate. In a twinkling it was reported. Then the Senate adjourned without passing it. It was during the maneuvers of the resurrectionists that the whole beauty of the process of manufacturing the Voice of the People was baldly revealed. The bill was generally recognized as unconstitutional, but that made no difference. These were the reasons: In asking that the bill be reconsidered, one member of the House of Representatives announced that a party caucus in Washington had decided that the anti-trust issue should be the principal issue; that the State administration had been elected on an anti-trust platform, and that the legislature could not go back to the people unless it passed an anti-trust bill. In reply to a question whether there had not been an understanding that the section exempting wage-earners from the operations of the law, the unconstitutional point, should be removed from the bill, he said that friends of the bill had agreed that it would be unwise to eliminate that section.

Another member urged that it was a party measure, and that a party legislature had no right to question it or to vote against it. One member voted for the bill because his constituents wanted him to do so, and another because he believed the bill harmless, as it was unconstitutional.

It is no wonder that a straightforward member, alluding to the report

that the exempting section had been put in the bill with the silent dissent of the attorney-general of the State, said that it was merely an attempt to carry out promises to the people in an insincere way, and that the faithful chronicler of the episode characterized it as extremely funny, had not the measure been so important, inasmuch as many who helped to push it along hoped in their innermost hearts that something would happen to cause its untimely end. He added:

The politicians are worried over the situation, and are fearing the vengeance of the people at the next election, as the result of this artistic slaughter of the anti-trust bill, which was to have been the shibboleth of the next campaign.

If the People have their wits about them they will not do a thing to the politicians because of the failure to pass a useless measure. But the People will ask what a caucus in Washington has to do with the conduct of a legislature elected to make laws for the State, and why should the time which ought to be devoted to making those laws be occupied in framing a senseless shibboleth for the next campaign? But the People ought to be grateful to the politicians for explaining so minutely the intricacies of the process by which great Moral Principles are launched upon a long-suffering but patient public, and to the Louisiana legislature for showing so clearly in the small how things are usually done in the large.

LET IT SLEEP.

Congress adjourned with no report from the House committee on the judiciary upon the resolution submitting an amendment to the Constitution giving Congress power to establish uniform hours of labor in manufactories in the United States. It is stated that the committee did not favor the resolution, because it would be a step in the direction of interference by the government in industry, but that there is in preparation another form of the proposed amendment limiting its application to female and child labor, and that it is certain that the resolution in its new form will be reported by the committee upon the adjournment of Congress. It is generally recognized that such an amendment to the Constitution can never be adopted. The difference between congressional control of labor in American manufactories and congressional control of female and child labor is, in essence, the difference between tweedledee and tweedledum. Each is an interference by government in industry. Its injection into congressional debates can benefit to no extent those particular New England interests which have been behind the narrowly-confined agitation for the amendment. It will fool only for a short time, if at all, the cotton-mill labor of New England. It will certainly interfere with the development of harmonious relations between Northern and Southern cotton-mill interests, without which the growth of the textile industry in this

country will not keep pace with the demands upon it. The putative father of the measure and its sponsors had better, for the good of everybody concerned, let it sleep forever in committee.

SOUTHERN LUMBERING.

Between 1880 and 1900 the lumber industry in the South increased the number of its establishments from 6626 to 14,062, the amount of its capital from \$23,546,076 to \$181,702,526, and the value of its products from \$39,930,432 to \$188,114,524. In the meantime the number of establishments in the whole country increased from 25,708 to 33,035, the amount of capital from \$181,186,122 to \$611,611,524, and the value of the products from \$233,268,729 to \$566,832,984. The increases in the South by separate States are shown in the following table:

States.	Establishments.		Capital.		Value of Products.	
	1880.	1900.	1880.	1900.	1880.	1900.
Alabama.....	354	1,111	\$1,545,655	\$13,020,183	\$2,649,634	\$12,867,571
Arkansas.....	319	1,199	1,067,840	21,727,710	1,793,848	23,959,983
Florida.....	135	416	2,219,550	14,337,693	3,060,291	10,848,403
Georgia.....	655	1,254	3,101,452	11,802,716	4,875,310	13,704,923
Kentucky.....	670	1,280	2,230,558	9,805,404	4,064,361	13,774,911
Louisiana.....	175	432	903,950	20,093,044	1,764,644	17,408,513
Maryland.....	369	367	1,237,694	2,622,928	1,313,332	2,650,082
Mississippi.....	295	844	922,595	17,337,538	1,920,335	15,676,110
North Carolina.....	776	1,770	1,743,217	13,385,097	2,672,796	14,862,593
South Carolina.....	420	729	1,056,265	5,187,727	2,031,507	5,207,184
Tennessee.....	755	1,732	2,004,503	12,900,595	3,744,905	18,127,784
Texas.....	324	637	1,660,352	19,161,265	3,673,449	16,296,473
Virginia.....	907	1,341	2,122,925	9,299,046	3,434,163	12,137,177
West Virginia.....	472	950	1,068,920	10,421,570	2,431,857	10,612,857
Total South.....	6,626	14,062	\$23,546,076	\$181,702,526	\$39,930,432	\$188,114,524
Total U. S.....	25,708	33,035	\$181,186,122	\$611,611,524	\$233,268,729	\$566,832,984

That the capital invested in the lumber industry in the South in 1900 was greater than that for the whole industry in the United States in 1880, and that in the twenty years the number of establishments in the South had increased from 25 per cent. to 42 per cent. of the number in the whole country, the capital from 12 per cent. to 29 per cent. of the whole, and the value of the products from 17 per cent. to 33 per cent. of the whole, shows clearly that the South has made good in this field the promise it had already given before the interruption of its material progress by war.

The magnitude of the industry justified the preparation of a special bulletin for the United States census by Mr. Henry Gannett, which shows among the products in the country in the census year 26,153,063,000 feet of rough lumber from the coniferæ and 8,834,121,000 feet of hardwoods, 12,101,017,000 shingles, 441,327,000 hoops, 1,664,792,000 staves, 124,089,447 sets of headings, 39,975,000 feet of bobbin and spool stock, 103,534,000 feet of furniture stock, 32,786,000 feet of agricultural implement stock, 80,927,000 feet of carriage and wagon stock, 35,314,000 feet of pickets and parrings, and 2,523,998,000 of laths. To these products should be added basket, cooperage, handle, paving and wheel stocks, fence posts, hoop poles, hewed timber, logs, hemlock bark, oak bark, piles, railway ties, masts and spars, ship knees, telegraph poles, charcoal and minor products

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 54 and 55.

from the timber cut of the year. Of the total cut, the number of feet of timber of all kinds cut in the South was as follows by States: Maryland, 187,957,000; Virginia, 954,089,000; West Virginia, 780,453,000; North Carolina, 1,415,978,000; South Carolina, 483,884,000; Georgia, 1,354,010,000; Florida, 824,329,000; Alabama, 1,149,994,000; Mississippi, 1,208,739,000; Louisiana, 1,214,387,000; Texas, 1,246,178,000; Arkansas, 1,665,158,000; Tennessee, 951,408,000, and Kentucky, 777,218,000—a total of 14,213,782,000 feet.

The greater portion of the Southern cut was of yellow pine, amounting to more than 9,671,000,000 feet, and representing about 27 per cent. of all the lumber cut in the country. This timber of various species is found in all the Southern States, but nine-tenths of it is in the eastern part of North Carolina, South Carolina and Georgia, in the

northern part of Florida, in Southern Alabama, in the southern third of Mississippi, with a strip extending almost to the northern boundary in Southeastern and Northwestern Louisiana, in Northeastern Texas and in Southern Arkansas, the area in the South Atlantic and Gulf States yielding to low marshy cypress-bearing strips near the coast and extending into the hardwood forests of the interior. The cypress cut in the census year was 495,000,000 feet, of which 339,663,000 were in Louisiana. Tennessee led in the South in its cut of white oak, 408,883,000, with Kentucky second, 392,804,000, and West Virginia third, 353,469,000 feet.

The yellow-pine area has upon it, it is estimated, about 300,000,000,000 feet of standing timber. It constitutes a great part of the wooded area of the South, though it must not be understood that the trees of all that area necessarily contain merchantable timber. There is quite a difference, from the lumberman's point of view, between the wooded area of Maryland, 44 per cent. of the area of the State, and that of West Virginia, 73 per cent. of the State's area; between the 71 per cent. wooded of the total area of Georgia and the 74 per cent. of Alabama, while the 84 per cent. wooded of the total area of Arkansas represents 45,000 square miles, and the 24 per cent. of Texas represents 64,000 square miles, a considerable portion of the Texas woodland being covered mainly with post oak and black jack, of value for firewood, fencing, etc.

In this wooded area of the South is a great variety of timber, an index to which was given as a result of the ex-

amination made in the mountain region of Western North Carolina, embraced in the plan for the great Appalachian forest reserve. Representatives of the United States Geological Survey found in that region a total stand of 10,650,000,000 feet of oak, chestnut, white pine, hemlock, spruce, poplar, ash, cherry, cucumber, peawood, buckeye, linnwood, black gum, beech, birch, maple, hickory, locust, black pine, short-leaf pine and other species.

These few facts reveal something of a great source of wealth for the South, of the progress made in developing it, and yet of a possible danger. Knowledge that there is quite a body of untouched white pine in the most elevated portion of West Virginia, and that there is enough yellow pine standing in all the South to bear for thirty-three years an annual cutting equal to that of 1900, is quite satisfactory to persons who look only to today or the immediate tomorrow. But when it is considered that the cut in 1900 of Southern yellow pine was 4,200,000,000 feet more than the cut of white pine in Michigan, Wisconsin and Minnesota, the home of the white-pine industry, the mind is directed in warning to the lumber history of the lake region shown by the depletion of the timber in Michigan and the inroads upon it in Wisconsin, as the industry has moved toward Minnesota. While in Michigan the increase in capital during the twenty years has been from \$39,200,428 to \$67,379,698, the value of the output has increased only from \$52,449,928 to \$54,290,520. Increases in capital in the other two States have been greater in proportion than the increase in the value of products. In Minnesota the capital has increased from \$6,771,145 to \$52,095,923, and the value of the output from \$7,396,038 to \$13,585,161. In Wisconsin the capital has increased from \$19,824,059 to \$77,396,223, and the value of the products from \$17,952,347 to \$57,634,816. In the three States the total capital has trebled, while the value of the products has hardly doubled. In a study of the figures for these three great lumber States is the lesson for the South. It is that in spite of vast resources there is a way of lumbering that must exhaust them, and that instead of handling Southern yellow pine or any other Southern timber as the lake white pine has been handled, it is for the South, one of the great timber reserves of the country, to handle its forests upon economic and scientific principles, so that the area of its merchantable timber may remain practically the same forever.

THE NEGRO'S RIGHT TO WORK.

Illinois does not seem to have any use for the negro except as campaign material. It is apparently opposed to his being educated to usefulness. Not long ago the institution at Eldorado, conducted upon the Tuskegee plan for the industrial training of negroes, was practically, not to say forcibly, suppressed. Now a dispatch from Chicago records a strike of 300 union workmen at the University of Chicago because student non-union laborers from Booker T. Washington's Normal and Industrial Institute and other Southern institutions for negroes had been put to work under a special agent of Mr. John D. Rockefeller upon the power and heating plant of the institution. The dispatch says that many of these non-union students are skilled laborers, working for about the same wages as those received by union men doing the same kind of work, and that

they had been brought North and were working to obtain money to continue their college work next winter. The difficulty was submitted to arbitration, and the strike was called off. But the moral ought not to be lost on that account.

Vast sums of money have been wasted in the South in miseducating negroes. Other sums have more recently been spent, as at Tuskegee, in really educating them. Most recently a scheme has been devised, said to be financed by Mr. John D. Rockefeller and others, by which the whites of the South are to share the bounty with the negroes. The incident at Chicago suggests, with special reference to training negroes, that preliminary work is necessary in other directions before any more money shall be spent in teaching them how to work right. If negroes or individuals of any other race, for that, are not to be permitted to work after they have been taught at great expense to work, their education is just as futile as that represented in the many colleges and universities which have long misled them. Chicago was about the last place in the world where anything should naturally have been expected to interfere with young negroes from the South in their laudable purpose of making, during their vacation, by honest labor, a little bit of money to help them in their work at Tuskegee. But as it happens otherwise, somebody close to the General Education Board, organized ostensibly to promote education in the whole country, might propose that a few million dollars could be expended, perhaps with profit, in a sort of social settlement movement in connection with other fads of the University of Chicago, for the promotion of that species of education that will impress men with the conviction that individuals able and willing to work must be permitted to work, whether they are black or white. Then, after this instruction has been gotten well under way in Chicago, a few dollars might be spared in furthering a similar campaign in Atlanta for the benefit of a few great and good men of that community, so that the young men of the Georgia School of Technology, in their effort to spend their vacation in putting their education to practical use, may be free from menacing annoyance. In the meantime, however, let everything be done to give the Southern negro a chance at the work for which he is fitted.

A FORGOTTEN PARTNER.

Announcement is made that a national convention of employers and employes will be held at Minneapolis in September under the auspices of the Eight-Hour League and the citizens of Minneapolis, for the purpose of bringing together representative employers, the ablest spokesmen of organized labor and distinguished investigators of industrial and social problems. The circular of information about the proposed convention contains nothing promising that the gathering may result in anything more than an exchange of words about the relations of employer and employe in rather a contracted field. It speaks of the disputed claims of the two partners, Labor and Capital, and, advocating a more economic and businesslike plan of adjusting conflicts between the two partners, says:

The first step in that direction is to get together and talk the matter over in a spirit of fairness and good-will. Let each side present its grievances and its claims from its

own point of view, and then look at the matter when it is presented by the other side. In this way the thousands of delegates from various places, and representing various interests all over the country, will have a chance to look at the situation from different standpoints. Errors of information and judgment will be corrected, views and sympathies will be broadened. The attention of the entire nation will be directed to our industrial problems in a striking manner. When once the problem is stated in specific terms and the people get to thinking about it everywhere, the right solution is bound to be found sooner or later.

Among the promised speakers are a number of gentlemen who have gained distinction as investigators of social and economic problems, and whose utterances will undoubtedly be of some value in a discussion which has been waged more or less vigorously ever since the first man paid wages to another. But the question naturally arises, what is the use of holding a convention, even with such speakers? For the promoters of the convention appear to have overlooked two important matters. They seem to regard organized labor and limited capital as the sole partners in the social and economic life of the country to the neglect of the great body of wage-payers and wage-earners, the first not usually classed with capital, and the second generally forgotten in the public mind when there is talk about labor and about any set hours for work. The eleventh census showed that of 22,735,000 persons engaged in gainful occupations, not over 7,000,000 were among those popularly classed either as capital or labor. On the other hand, it showed more than 5,000,000 farmers, more than 3,000,000 agricultural laborers, more than 1,500,000 domestic servants, nearly 2,000,000 laborers, nearly 1,000,000 clerks, bookkeepers, etc., and nearly 1,000,000 persons engaged in professional service of one kind and another. These constituted, probably, two-thirds of the number of the individuals who are interested in disputes between Labor and Capital, and yet they practically are given no weight in discussions about the relations between the two. Because a man is paid by the week or by the month, instead of by the day, or because his brain, rather than his muscle, dominates in his work, he is no less a laborer and wage-earner than is the man who tends a machine or who handles a pick-axe. Moreover, the ability to handle a pick-axe effectively or to keep accounts accurately places the possessor in the ranks of capital. On the other hand, the merchant personally conducting a business giving employment to hundreds of clerks, traveling salesmen and draymen is no less a laborer than his office boy. The failure to bear these simple truths in mind and the tendency, often unconscious, to treat Labor and Capital as two distinct factors in society, a consequence largely of the existence of what is known as organized labor and about the only reason for the promotion of the suggested convention at Minneapolis, have more to do than anything else with disputes between a small portion of labor and a small portion of capital which the masses of labor and the masses of capital permit, to their own detriment.

The other point is that the objects for which the convention has been called have already been tried quite unsuccessfully by an organization whose membership includes some of the promised participants in the Minneapolis debates. Several months ago the Arbitration Committee, under the auspices of the Civic Federation of New York, was announced with a great

flourish. Subsequently that Committee took a hand in the alleged conflict between the anthracite coal operators and representatives of their employes. The result so far has been idleness of employes for a protracted period, instead of for a number of short periods, as is the usual custom in the collieries, and a largely-increased price of coal for the great mass of labor and capital in the country. It looks as if the Civic Federation's Arbitration Committee had been made the unwitting instrument of a confidence game for which the great masses of wage-earners will have to pay. It confirms one in the belief that conferences and conventions of representatives of the two partners, Labor and Capital, are likely to be loaded for the great majority of the American people.

INTEREST IN ST. LOUIS.

Ex-Governor David R. Francis of Missouri, president of the St. Louis Exposition, writes to the Manufacturers' Record as follows:

I have before me marked copy of the Manufacturers' Record of recent date containing an extensive article concerning the Louisiana Purchase Exposition, and wish to express my appreciation of the friendly spirit which prompted you to devote your valuable space so generously to this subject. At the same time, I cannot but commend your wisdom in thus laying before your readers such information respecting what it is proposed to make the greatest exposition ever held in this or any other country, and feel confident that the interest it will undoubtedly arouse will redound to the benefit of both the exposition and the Manufacturers' Record.

A Story of Progress.

[Anniston Hot Blast.]

In the course of his address before the Georgia School of Technology, Mr. R. H. Edmonds of Baltimore recounted a story of progress of the South that must have filled his hearers with pride, and which should have the effect of spurring them on to greater efforts. How many persons know that the South is wealthier today than the whole country was in 1860? Yet that is what Mr. Edmonds asserted, and quoted statistics to prove. And this has been accomplished in the course of a little more than forty years, during which period the section was devastated by the greatest of modern wars. Deducting the war and reconstruction periods, it may be said that the South's present development has been brought about in but little if any more than twenty-five years. * * * While this great advance has been made, the material resources of the South have hardly been more than touched upon. One-half of the standing timber of the country is in the South; the Southern hills are filled with valuable ores and other minerals, and the valleys and lowlands are adapted to the growing of about every product of the temperate zone. The progress of the next forty years will be more wonderful than that of the past forty. The South's most valuable resources, however, are, as Mr. Edmonds says, her boys and girls. They must be educated in such manner as to fit them for the responsibilities that will devolve upon them as the coming developers of the section's richness. The technological school is doing a great work in that direction. Other schools that will afford technical training are needed. The present era is one of industrialism, and it has a long time yet to run.

S. C. McCormack of 89 East street, Kingston, Jamaica, writes to the Manufacturers' Record that he desires to obtain catalogues of coffee roasters, hand-power mills for grinding cocoa and coffee, hand-power presses for expressing juices, labels and cardboard boxes.

LEAD IN SOUTHEASTERN MISSOURI.

An Old Field Now Under Remunerative Development.

[Special Correspondence Manufacturers' Record.]

St. Louis, Mo., July 14.

Ask any hundred men you meet—and St. Louis itself is not barred from this—for information about the lead fields of Missouri, and the chances are that ninety will tell you frankly they don't know anything about them. Of the other ten, most of them are likely to tell you whatever they may happen to know about the richness and the great development of the Joplin lead and zinc district. And yet only sixty miles from St. Louis are located the Southeastern Missouri lead fields, a district with present limitations of about three by thirty miles, out of which there was mined last year \$3,200,000 worth of lead; which now produces about one-fourth of all the lead mined in the United States; which is mainly owned by representatives of some of the largest commercial interests in the country, and which is destined to become a still greater producer of lead as the years go by. Moreover, these are the oldest lead mines in the United States, having been worked by early French explorers as long ago as 1719, and before that having been worked by the Chickasaw Indians from time immemorial. They are also distinguished as being the only mines in the world where lead is the sole product.

Why these mines and this district have been so long overlooked by so many people, and why their fame is not more widespread now, are matters of somewhat complex analysis. It seems, however, that in the first place there was disappointment that no silver was encountered in the ores, the first explorers being under the impression that ores of great value would be found in these mines. In John Law's great Mississippi scheme much stress was laid on the fabulous mineral wealth of the district included in his attempted operations, and the supposed riches of this very district were presented in fantastic exaggeration to the investing public of that day. When the bubble burst any bottle with the John Law name blown in it was discredited and discarded, and thus development of much that was even richer than ever dreamed of by Law was deferred until the odium of the failure had passed away.

Again, while mines in this southeastern district of Missouri have been worked with little or no interruption for more than 180 years, the early workings were of the crudest sort, accounted for by the distance of the mines from transportation by water or by rail, and the isolation of the entire territory. Then the war interfered with development work of all kinds in the border State of Missouri, and when the attention of outsiders was finally attracted to the opportunities existing here, big interests quietly went to work to secure large holdings, and, having nothing to sell but the product of the mines, there has been no incentive on their part to brag of the excellence of the "find" they have made. Another thing: This is no "poor man's camp," the ores being very low grade and requiring costly plants to prepare them for the market; hence this can never be a "popular" mining section, and the chances are that the larger ownerships will ultimately absorb the others until all the mining will be done by one large corporation or combination. In any event, it always has and always will take a large investment of capital to profitably operate these mines, so that the mining business here is robbed of much of the speculative interest which attaches to camps where the pauper of today may be

the millionaire of tomorrow. Here it is very largely a matter of mathematical calculation, much like working up a tree into lumber. There are no bonanzas, no remarkable pockets of dazzlingly rich ore, and the business resolves itself into a routine of so much return—never very large, albeit quite remunerative, reckoned on the basis of a dividend on investments made. The special interest that outsiders may now have in the field lies in the fact that the limits of the territory in which lead may be profitably mined have not been rigidly determined; in fact, it is the opinion of many who have given the matter the closest investigation that there is a greater future for adjacent territory not yet developed than the whole field has known up to the present time, and in this direction there may be opportunities for the outsider which are worthy his investigation. At any rate, on account of the magnitude of the industry and because this feature of Southwestern development is not being generally discussed in the public prints, it may be of interest to here give some of the facts in the history of the section.

Although it is now about 200 years since the first French explorers located the lead mines of Southeast Missouri—it may be noted that nomenclature of the whole region is still stamped with the French origin of the settlements—it was not till 1866 that anything like a systematic development of the resources of the section took place. Up to that time the work was largely done by the farmers of the neighborhood, and all the mining was unscientific and at shallow depths. Openings had been made at a great many places in the counties of Madison, St. Francois, Washington, Crawford, Iron, Franklin, Jefferson and St. Genevieve, and during the century and a-half of such operations the aggregate output of mineral had reached several million dollars' worth. Last year the value of the lead of St. Francois county alone was \$3,119,589. This year the total output of the entire district, St. Francois county still leading by a very large margin, is expected to reach over \$4,000,000.

Modern development was first made in the Bonne Terre district, St. Francois county, by a New York company, which in 1896 paid \$500,000 for 1000 acres of land, and, organizing under the name of the St. Joseph Lead Co., began the operation of the old surface mines they had acquired. After three years of unsatisfactory experience they brought from the East the first diamond drill which had been seen in the district, and at the depth of 120 feet struck the so-called disseminated ores which are characteristic of the district. The gradual development of the district followed, and the St. Joe mine, as it is generally called, now has an ownership of between 30,000 and 40,000 acres of land, is capitalized at \$3,000,000, has paid \$3,500,000 in dividends, and is reported as being under option on a valuation of \$10,000,000. Interested in this company are C. B. Parsons, a well-known mining engineer and capitalist, who is the largest individual stockholder in the company, and J. Wyman Jones, brother-in-law of Senator M. A. Hanna. The ore mill of this company has a capacity of 1000 tons a day. It replaced the old mills, which, by occasional additions to the original small mill, had become a sort of museum of concentrating plants at the time they were destroyed by fire one year ago. There are now twelve

producing shafts on the property of the St. Joe Company. The shallowest is eighty feet in depth and the deepest 330.

In the early pioneer work of the St. Joe Company a hard struggle was experienced. The mines were twelve miles from a railroad, and the ore had to be hauled by team over rough roads. It was not till the company built a narrow-gauge railroad fifteen miles long that the mines commenced to pay. Now this road has a length of fifty miles, is of standard gauge and well equipped, and is said to be one of the best-paying railroads for its mileage there is in the world. The prosperity of the district dates from the construction of this road, which taps the Iron Mountain at each of its termini. Of additional benefit to the district will be the Missouri Southern road, which is to run from the Mississippi river at St. Genevieve through the heart of the mining districts of St. Francois and Washington counties. This road will give access to the Southern Illinois coal fields, affording a better fuel at a lower rate than now prevailing, and it will also give desirable competition to the Mississippi River & Bonne Terre road. It is being built by Chicago parties, will be finished by the first of the year, and will be up to date in equipment and management.

Although the diamond drill is pre-eminently fitted for prospecting in this Southeastern district, and is now universally employed there, the formations being porous limestone or soft slates, which can be drilled rapidly and cheaply, it was not till 1871 that it was employed outside of the original properties of the St. Joe Company. Then it was tried at the old mine La Motte, down in Madison county, where surface mining had been carried on since the discovery of the district. Here mining operations were changed from surface to disseminated ores, with the result that there are now produced from 3000 to 4000 tons of pig lead per annum. In both these places ores were found at less than 200 feet in depth, all early boring being done at shallow depths. No results followed much of the prospecting, but it was not till 1890 that drilling was done to depths of 300 to 600 feet. Most satisfactory results followed this deeper drilling, and a new set of mines began to be opened along the Big and Flat rivers, and developments have followed continuously ever since, especially so during the past five years. Besides the twelve producing shafts on the St. Joe property, there are six on the Doe Run, four on the Desloge, three on the Central, three on the National and two each on the Columbia and Catherine. Two other shafts opened in 1893, one by some farmers in the neighborhood and the other by a company of city lawyers, both of them being poorly located and now abandoned, are the only failures in the district, a remarkable record, as all will concede.

There are now about 18,000 people in the mining district, whereas there were not over 600 there at the beginning of the present development ten years ago. Within the circle of a mile about Bonne Terre there are some fifteen towns or mining camps, each with a name, but all belonging to the settlement called Bonne Terre. Some 5000 inhabitants are included in this district. The Flat River district contains eleven towns or camps, and the area of the Flat River development is about five miles wide by seven miles long. These are the centers of activity, and from the mines of these districts the greater output of the lead of the entire Southeast Missouri section is obtained. In the Flat River district are a number of the important new interests which have come in within the past few years. Here are the Guggenheims, with a large

ownership of lands, which they are working and developing. The National Lead Co. owns 1300 acres of land here, and has put up a fine plant with a daily capacity of 1300 tons. It is all built of steel, is operated throughout by electricity, and is unexcelled in appointment. The company has spent \$1,250,000 on its land and mill. As this company or combination is a large buyer of ore, purchasing at least 75,000 tons of lead a year, and the production of this entire district is not now more than 35,000 tons a year, the incentive to the greatest development of the district becomes apparent to even a layman.

The Ryan-Whitney syndicate, representing the Union Lead & Iron Co., has consolidated several of the interests in the district, and it is considered probable that an ultimate consolidation of all the interests there may be brought about. While there are several smelters in the district, notably that of the St. Joe Company at Herculanum, on the Mississippi river, the Ryan-Whitney syndicate is constructing a new smelter at Alton, Ill., at which ores from this district are to be treated.

All the large enterprises and the new work of the entire district have been backed by outside parties, most of the local interests having sold out early in the development at low prices. New Yorkers have supplied most of the money, although the Philadelphia interests are quite heavy. The Federal Lead Co. has a mill at Irondale, and is operating in a pioneer way in this district, which is outside of the recognized ore belt, but in the direction of great probable future development if all that is now being predicted of Washington county shall be demonstrated to be well founded.

Down in Madison county, in the vicinity of Fredericktown, a rich body of ore recently discovered has been acquired by the Columbus Skein & Iron Works Co., the principal owners of which are Frank E. Stoneman and Joseph F. Davidson of Columbus, Ohio. A shaft has been sunk, and the company is now putting up works after the designs of R. D. O. Johnson, a St. Louis mining engineer, who has spent a great many years in the district. Other St. Louis interests in the district are represented by H. J. Cantwell, who has been instrumental in interesting Eastern capitalists in many of the properties now being developed, who owns large tracts in various parts of the district, and who has unbounded faith in the greatness of the section's future. St. Louis is not otherwise largely interested in the district, even to the point of securing the business of the locality, the evidence being to the effect that Chicago supplies most of the mill machinery, while the iron work is obtained from the East. All the conditions in the district indicate the neglect which even its neighbors seem to have bestowed on every feature of the situation.

Although the ores of the district are of low grade, the yearly averages being between 2 and 4 per cent., and only in local spots running up to from 5 to 10, the ore bodies are so remarkably persistent that a long life, with even modern methods of mining and on a vastly increased production, are anticipated for these already two-century-old mines. In the section now being developed the ore bodies lie in horizontal chutes at a depth of from 200 to 400 feet. They are from four to twenty-four feet in thickness, from 50 to 500 feet wide, and of indefinite length. Mining is very cheap, no timbering being required. There is usually a roof of thick, strong limestone, and mining is carried on by the pillar system. Labor, largely local, the exceptions being a few importations of Hungarians from the East, is cheap, the maximum for com-

mon laborers being \$1.25 per day, with \$1.75 at the outside for the drill men the district affords. Fuel is also cheap, so that while some of the mines have a good deal of water, that is not a serious obstacle. On account of the low grade of the ores, all of the mines find it necessary to have large concentrating plants running from 300 to 1300 tons a day, so that equipment costs from \$250,000 to \$2,000,000. After concentration the ores will assay from 60 to 75 per cent. in lead. The concentrates are largely smelted by local smelters, when they become a chemical lead of superior quality for sheets. If silverized, they make an exceptionally high grade of corroding lead, from which white lead is made.

The surface of the country is rolling; the drainage is therefore good and the climate is agreeable and healthy. The elevation is about 1000 feet. Though portions of the territory are susceptible of a good degree of cultivation, and fruit-raising is successful and profitable, wherever the big mining companies get in, the farming disappears. Ownership in fee of all lands operated upon is the unvarying rule here, in direct contrast with conditions around Joplin. There are no mining leases and there are no small operators in this field. This makes an immovable barrier between employer and employed, for by no possible circumstance can the mine worker of today become a mine owner tomorrow or in a thousand years. One cannot help drawing comparisons between these mine workers and those in the Joplin district, where it is not impossible or even difficult for a day laborer to get started in the business as a "boss" whenever he gets a few dollars ahead and finds an acre of "jack" land which he thinks it would pay to lease and work. Nevertheless, there is not quite the hopelessness of a coal-mining camp in this Southeastern lead district. The miners' houses are neater-looking, the comforts of life are apparently more generally disseminated, and existence does not seem quite so barren. But it is still very unlikely that there will be any important trading center or residence town built up here by the lead-mining industry.

The price of lands in the mineral districts of Bonne Terre and Flat River ranges from \$50 to \$1000 an acre, and all the promising lands are either in the hands of lead operators or are under option to operators or promoters. These lands formerly sold for from \$5 to \$50 an acre. On account of the withdrawal of these lands from the market, newcomers in the field are now giving a good deal of attention to the possibilities of development in the counties of Washington and Crawford. In these counties the ore-bearing rock is found at a much greater depth, 800 to 900 feet of drilling being required. As the cost of drilling necessarily increases with the depth, and the difficulties are greater than in operating in shallower depths, there has been a disposition on the part of the local drill men to look with some degree of disfavor on the attempts to create a district in sections where deep drilling is necessary. On this point Prof. H. A. Wheeler, formerly connected with the Missouri State Geological Survey and the United States Geological Survey, late of the faculty of the Washington University, and a recognized authority on the Southeastern district, declares that only the inexperience of the drill men prompts the declaration by them that the district presents especially hard problems. He declares the difficulties of drilling to greater depths are not nearly so great as in the Lake Superior iron mines or in the gold and silver mines of the West. From all that the diamond drill has shown of conditions in Washington and Crawford counties, it is the

opinion of Professor Wheeler, in which he is joined by many others who have studied the field, that the future of that district is exceedingly promising. Lands are selling here at from \$20 to \$100, and those who are in the field are keeping quiet as to their discoveries, and meantime acquiring all the land they can take care of. The borings made disclose richer ores than those of the St. Francois county mines, and it is the confident prediction of those who have given the matter the greatest investigation that not only will the success of the St. Francois county mines be duplicated, but that even a much larger development will occur, and that a long and profitable life is in store for the new district. ALBERT PHENIX.

LABOR IN LOUISIANA.

Difficulty in Obtaining All the Workers Needed.

[Special Cor. Manufacturers' Record.]
New Orleans, La., July 14.

There is one question in Louisiana at this time more important than all others, even more important than the many measures which have caused such wide discussions before the State legislature now in session—how can the deficiency in the number of laborers all over the State be met? Scarcely a day passes that there is not some mention in the daily papers of a cotton factory or some other enterprise which has been started being badly handicapped for the lack of sufficient hands to operate it. Everybody has discussed the situation, but nobody offers a solution.

Last fall it was almost impossible to get enough pickers to gather in the cotton crop. When it came time to start the sugar mills there was as great difficulty in getting labor as there had been in gathering cotton. Negroes are especially fond of the glamor about a big sugar-house, however, and will desert the cotton field any day for the cane patch. Consequently, much cotton was left unpicker by the hands who rushed to the ripened cane fields. Although the cotton fields were pretty well depleted of their negroes, the sugar planters did not have nearly enough men to take care of the crop before the severe frosts came, notwithstanding that some of the largest planters had brought into this port through the Italian steamship company several thousand Sicilians. Arrangements are now completed for bringing in still a larger number of Sicilians and Italians this fall, but the trouble is that it is impossible to keep these thrifty people in the cane field longer than two seasons. By that time they have laid by a little money and are ready to start a fruit shop or a grocery store at some cross-roads town. Those who do not establish themselves thus strap packs on their backs and peddle bluejeans overalls and red handkerchiefs to the negroes.

Steamboat men are all in a flurry because the rice crop is soon coming on, and while they had the greatest difficulty last year in getting enough roustabouts to man their boats, yet they say that the trouble of last year will be nothing compared with that now almost in immediate store for them. Last rice season the steamboat master paid as high as \$110 per month for negroes, but often a boat could not go out of port at that for a week because of the lack of the sufficient number of roustabouts to make up a crew.

There was a disposition among the steamboat men to say that the reason negroes did not care to work on the steamboats was because the rice planters persisted in sewing up from 300 to 400 pounds of rice in a sack, which made too big a load to be carried on the back of any one ordinary black man, be he ever

so willing to work for his daily bread. This year the sacks will not be so large, but as the hands seem equally as scarce as formerly, the heavy sacks hardly seem to be the cause of the dearth of labor on the river.

There has come to be a feeling of marked and formidable nature to the effect that the negroes of the South, especially of Louisiana, are growing entirely too scarce for the amount of work there is to do. There is no doubt but that a very large percentage of the young negroes are going either North or West. Especially is this the case with the young negro boy or girl who has secured some education.

So far it has been almost impossible to induce white immigrants to come into this portion of the South from other countries than Italy, and then only in comparatively small numbers, coming under the terms of an agreement which is in reality a contract for their hire after they arrive. Germans, Scandinavians and Irish will not work on the plantations and on the farms, because they will not be put in close contact with the negroes.

IN THE VIRGINIA BELT.

Development of Copper Properties Steadily Progressing.

[Special Cor. Manufacturers' Record.]
Virgilina, Va., July 12.

Since the last report of the Virgilina copper belt, noted in the Manufacturers' Record, there has been slow but steady progress in the development of the field, and there are more properties being worked now than at any time in its history. The Virginia Copper Co., operating the High Hill mines at the northern end of the belt, are still continuing the development work there, and a new company, known as the Pontiac Mining Co. of New York, comprising a number of the principal stockholders in the Virginia Company, was organized June 27, with a capital of \$1,600,000, to develop the property adjoining on the west. Howard Bros. of Buffalo, N. Y., are now placing machinery at the Chappel mine, east of High Hill, and will be ready to begin active operations by September 1.

The Bailey mine, about three and one-half miles north of Virgilina, which, for the development, is one of the best showings on the belt, is expected to be extensively worked in the very near future. The Blue Wing, two and one-half miles south of Virgilina, is being operated by John T. Williams of New York, under the management of J. B. Hart, and is proving itself worthy of the new lease of life thus given it. This mine is one of the earliest developed in the district, and had been given up by several companies as a failure, owing to the crude methods of developing and treating the ore, but Blue Wing in this respect only repeats the history of a large number of the best mines and mining regions whose early records are those of abandonment and reclamation.

The Holloway mine, four miles south of Virgilina, is still being operated by W. E. C. Eustis of Boston, and has been shipping ore steadily since 1898. The Danville Copper Co. reports marked improvement in the ore at the Copper World mine, which it is operating, and the Arringdale mine is said to be working in copper pyrite. Most of the veins of the belt, however, on which development work has been done carry chiefly chalcocite (copper glance) and bornite (copper sulphide), together with a small percentage of gold and silver.

The property of the Person Consolidated Copper & Gold Mines Co., eight miles south of Virgilina, which is being operated under the management of L. N. White, is being regarded with much inter-

est. This company has recently erected a very complete mill for the concentration of the ore at the mine, having had thoroughly competent and experienced Western men to install the machinery, and the results have been very satisfactory. The Virgilina copper belt has had to struggle with the problem of heavy freights and expensive hauling on waste material, as well as the extra cost for smelting, the price for smelting a ton of 50 per cent. concentrates being the same as that for smelting a ton of 3 per cent. ore. Since developments show that much of the ore on the belt is of the same character as the Person Consolidated mine, the problem successfully solved for one is solved for all.

The Ford property, which is now being prospected by Pannebaker & Howard Bros., shows enormous veins of eruptive conglomerates, all of which carry more or less mineral.

A new telephone system has lately been put in operation to the northern end of the belt, and is now being extended to the southern end. A siding has recently been put in to the Blue Wing mine from the Holloway mines branch railroad, and several surveys have been made for a branch railroad to extend to the northern end of the district.

The town of Virgilina, which is directly in the center of the belt, and on the Atlantic & Danville division of the Southern Railway, has been making marked improvements. The main streets of the town are being graded, a new large hardware store is being constructed, as Virgilina is the supply headquarters for all the mining district, and orders have been placed for furnishing the lumber for three new tobacco prizeeries to be erected before the new crop is ready to harvest. The Southern Railway Co. recently surveyed the ground for a new depot about 300 yards from its present location to secure sufficient room for sidings and the necessary buildings, as the amount of traffic is very much greater than its present limitations can accommodate.

Manual Training.

[Birmingham Age-Herald.]

The thinking men of the South are being aroused to the importance of manual training for the average Southern white boy. The professions and the mercantile class will take care of themselves, but the great mass of boys need looking after, and no educational movement will be so far-reaching for good as that directed to the advancement of youth along lines of manual training in connection with grammar-school work.

A cherished idea of Dr. J. H. Phillips, superintendent of public schools of Birmingham, has long been the introduction of a system of manual training in the schools under his charge and the development of elemental shop and tool work into a department of technology in the High School. The board of education is heartily in harmony with Dr. Phillips in his efforts to give the boys of this city a course in manual training, and steps have already been taken to put the desired system into effect next fall.

Mr. Richard H. Edmonds, editor of the Baltimore Manufacturers' Record, has taken up the question of manual training of the white boys of the South with great earnestness. With his pen and voice he has done more for this entire section perhaps than any other man to stimulate the educators and men of influence in general to push this matter in a broad and practical way.

There is a general complaint of a scarcity of skilled mechanics in the South. Thousands of first-class mechanics there are, yet there is not only

room, but a pressing demand for ten times more men who have been trained at school in industrial work.

Rebuilding at Alexander City.

[Special Cor. Manufacturers' Record.]
Alexander City, Ala., July 14.

Nothing daunted by the recent disastrous conflagration that visited our beautiful city on June 13, the business men of Alexander City have not lost heart of their future success or faith in their town. On every hand large forces of hands are at work, some clearing away great piles of debris, which is fast disappearing, while possibly 200 carpenters and masons are rapidly plying their tools, and within sixty days more there will arise from the ashes of this great fire a new Alexander City, more modern, more beautiful and more enterprising than ever before.

The city council, immediately after the fire, passed an ordinance making it imperative upon the property owners to erect nothing but standard brick and stone buildings within an established fire limit. This precludes all possibility of a future disaster from a "fire trap" of modern buildings within the business part of the city, from which our recent disaster came. Among those now rebuilding are the following: S. J. Nolen, one-story brick and stone store; Geo. A. Sorrell, one-story stone and brick store; the Alexander City Bank, one-story brick bank; Citizens' Bank, one-story bank and one store; R. Herzfeld, three brick and stone stores, with one large warehouse; J. C. Maxwell, one-story stone and brick double store; J. E. Walker, one-story stone and brick double store; E. B. Rainey, two-story stone and brick drugstore; S. P. Adams, Jr., five brick stores; Central of Georgia Railway, brick depot, with brownstone front; F. M. Douglass, brick and stone store; E. P. Duncan, one-story stone and brick double store; J. A. Robinson, two-story stone and brick double store; C. A. Bailey, one-story stone and brick store; H. W. Pearson, two-story brick double store; Dr. J. A. Gaggans, one-story brick store; J. W. Wilder, one-story brick store; W. J. Jones, one-story stone and brick store; C. R. Sigrest, one-story brick store; L. B. Coley, two-story brick drugstore; A. L. Moon, one-story stone and brick store; W. F. Belew, one-story brick store; J. H. Fuller, one-story stone store and livery stables; M. F. Walker, two-story brick livery stables; W. M. Welch, two brick and stone stores.

The following have not yet begun construction, but will be let for contract within a few days: Casper & Harlan, large two-story brick double store; Dr. J. A. Gaggans, modern brick hotel, two stories; Hooper & Nolen, modern brick hotel, three stories (both these hotels will have stores on ground floor); C. W. Battle, one-story brick store and warehouse; First Methodist Church, brick; Mrs. Emma Jackson, brick store; the Masonic and Pythian Temple, brick, two stories; the Alexander City Courthouse, two stories, stone; W. L. Waters, store building, one story. The following residences under construction at time of the fire will soon be completed: Dr. A. J. Coley, two-and-one-half-story dwelling, costing about \$5000; Mr. M. F. Walker, two-story dwelling, costing about \$4000. Both these dwellings will be among the most beautiful in East Alabama.

A. P. FUQUAY,
Secretary Industrial Association
of Alexander City.

Emmanuel Nunez of Tunis writes to the Manufacturers' Record that he desires to get into communication with American exporters of Maryland and Kentucky tobacco, nickel and brass, oil lamps and straw paper.

In the Beaumont Oil Field.

[Special Cor. Manufacturers' Record.]
Beaumont, Texas, July 16.

At Sour Lake, twenty miles west of Beaumont, there was a tremendous gas and oil blowout a day or two since that wrought havoc. The well is the Guffey No. 2, and came in with a rush and roar of gas at about 8.30 in the morning. The men were speedily driven away, and the roar continued until late in the afternoon, when, instead of transparent gas, there came a solid body of oil shooting almost as high as did the great Lucas gusher on January 10, 1901. Then after a few minutes of terrible straining, the oil blowing out rocks and hard clods all the while, it subsided and was no more. In the meantime the well had been destroyed and the derrick and machinery were a wreck. The exhibition had caused a lake of oil all around for a distance of 100 yards in every direction, and it was necessary to wade in the greasy substance to get to the well at all. It proved conclusively, however, two things: First, that the Sour Lake field carries with it a tremendous gas pressure and plenty of oil, and second, that the field is larger in area by a considerable margin than is Spindle Top.

Prosperity is rampant in the Jennings (La.) field, there being shipped daily from that point more than 5000 barrels of crude oil. Thirty cars per day is the average by rail, with the balance going through the Mermentau river and by wagon to the large sugar and rice plantations not far away.

The big zinc smelter that is to employ 1000 men here will begin construction in thirty days, having now finally closed the land purchase. There is also a car-works plant that has made a contract for a site that carries with it the employment of 500 men guaranteed. Mr. Mower of the zinc smelter has bought a well on Spindle Top that he will use for his fuel supply. The Bart refinery construction is progressing satisfactorily.

In Oklahoma City.

Editor Manufacturers' Record:

The greatest opportunity now open for the enterprising manufacturer is in the new Southwest, notably in Oklahoma and Indian Territories.

The people are here, the money is here, wholesale houses and railroads are multiplying rapidly, and now there is urgent demand for new factories. Finding the situation as stated, Oklahoma City recently took the initiative by organizing the American Manufacturers' Aid Association, with an authorized capital stock of \$250,000, the first series of \$50,000 of stock having already been taken. This has for its purpose the creation of a large fund to be lent to or to take stock in meritorious factories seeking a location in this community.

As this is an important cotton market, there is some probability of starting a cordage and twine mill at an early date, in which the Manufacturers' Aid Association may take stock.

The brick building 80x200 feet in process of construction for the new woolen mills is nearing completion. The engine, boiler and several carloads of machinery are on the ground ready to be installed.

A new furniture factory has recently been organized here, and will be ready for business by October.

Mr. Rose of Chattanooga was here a few days ago prospecting with a view to locating a large mattress factory. He was so well pleased that he decided to plant here in the early fall.

Your excellent publication, the Manufacturers' Record, is on file at the Commercial Club rooms in this city. It is do-

ing great missionary work for industrial development in the South and Southwest, and the writer always welcomes its smiling face wherever he finds it in the numerous States he visits.

LOUIS J. BROOKS.

Oklahoma City, O. T.

Huntsville Notes.

[Special Cor. Manufacturers' Record.]
Huntsville, Ala., July 16.

The Alabama Commercial and Industrial Association, in annual session at Gadsden, Ala., last week, elected the following officers for ensuing year: Mr. Chas. P. Lane, editor of the Huntsville Evening Tribune, president; Mr. L. L. Gilbert, Montgomery, re-elected secretary and treasurer. Mobile was selected as the next place of meeting.

The Huntsville city council has awarded the contract to A. M. Booth of this city to erect Huntsville's new public schoolhouse at \$21,650. Mr. Booth has let the contract to the Huntsville Brick Co. to furnish 1,000,000 brick for the new building.

The "Pettus Educational Plan," of which President R. E. Pettus of the Huntsville Chamber of Commerce was the originator, was unanimously adopted by the Southern Educational Association, which met in Chattanooga, Tenn., last week. The plan is regarded as the best method to educate the children of the rural district.

For Louisiana.

Secretary of State John T. Michel of Louisiana has done his State great practical service in compiling his report to Governor Heard for 1902. Developments in Louisiana in recent years have created a demand for a volume containing detailed information for the guidance of intending settlers in the State. There is no law authorizing the publication of a State manual, but Mr. Michel has sought to overcome the difficulty by including with his report a mass of well-arranged material bearing upon the history and present conditions of the State. This includes the organic law of the United States and of Louisiana, filling less than one-half of the 700 pages of the book; lists of Territorial, State and United States officials, of parish officers, with some information about each parish; descriptions of educational and other State institutions and political and financial tables immediately connected with the growth of the State. The volume contains half-tone illustrations of many of the public institutions of Louisiana, notably those devoted to education, photographs of State officers and an excellent county and railroad map. The information has been compiled from official records and the most reliable data of other kinds obtainable. It will be a book to which reference will be frequently made, and, with the recently-published annual report of Commissioner Thomas Harrison of the bureau of statistics of labor of Louisiana, will be an authoritative source of information for persons who desire to know what Louisiana offers to its citizens.

Tennessee Forest Association.

The annual meeting of the Tennessee Forest Association will be held at Monteagle, Tenn., on July 21. Col. J. B. Killebrew, the president, will make the opening address, and the rest of the program is as follows: "The Necessity of Preserving the Forests at Monteagle," by Dr. George Summey; "Forests as an Inspiration to Culture," by Miss Susie Gentry; "Our Inherited Disparagement of Forestry," by Dr. F. W. Moore; "Silviculture in Relation to City Streets, Parks and Private Grounds," by Dr. D. C. Kelly; "Beautifying School and College

Grounds," by Dr. J. H. Kirkland; "Relations Between Geology and Forests," by Prof. P. H. Manning; "The Exhaustion of Commercial Woods in Tennessee," by A. E. Baird; "Need of Organization and Legislation on Forestry in the South," by Dr. B. J. Ramage; "The Preservation of the Appalachian Forests in a National Park," by Dr. R. H. Battle; "Effects of Forest Destruction on Climate and Stream Discharge," by Prof. J. A. Holmes, and "Management and Utilization of German Forests," by Dr. C. A. Schenck.

The change that has been wrought in industrial circles by the introduction of fuel oil has increased interest in the whole subject of fuels in Texas, and has led to the publication by the University of Texas Mineral Survey of a bulletin on coal and lignite, containing also three chapters on the asphalt rocks of the State. This is the third bulletin which has been published since the organization of the survey, about eighteen months ago, and in its geological considerations have been given a secondary place for the most part, that the economic situation may be accentuated.

Experiments of the Navy Department with oil as fuel for war vessels will include a test of the steamer Mariposa, burning oil on a trip between San Francisco and Tahiti, in the Society Islands, a distance of 7300 miles. The Mariposa's plant consists of an automatic feeder, where fire-bricks are loosely piled in the place of the grating. As the oil streams down it is struck by a spray, either of compressed air or steam, and distributed over the fire-bricks and through the fire-box. After a certain amount of combustion the bricks become incandescent.

The Manufacturers' Record has received a number of samples of cotton goods made by the students of the textile department of Clemson College, S. C. This was the first textile school to be established in the South, and these products of the students of the department, of which Mr. J. H. M. Beaty is director, show the possibilities of such an institution as an aid to the industrial development of the South.

It is announced that the United Gas Improvement Co. of Philadelphia will substitute at an early date Texas oil for the Pennsylvania oil, which it has heretofore been using in the manufacture of illuminating gas. The company uses 75 per cent. of oil and 25 per cent. of coal in making gas, the coal being used to strengthen the illuminating qualities.

In an interview at New Orleans Mr. F. F. Steele, a manufacturer of brick machinery at Statesville, N. C., said that in two months last spring he had put in twenty-four brick-making machines in the South. He attributed the demand for brick to the rapid growth of cities and towns in the South.

During the summer there will be built for the Pennsylvania Museum and School of Industrial Art an annex, which will be used particularly for the department of chemistry and dyeing and the printing of textiles. The addition will be ready for the opening of the school in September.

Col. J. B. Killebrew has been invited by President Henry S. Hartzog of Clemson College, S. C., to address the institute that will be held at the college next month.

The Southern Foundry of Fredericksburg, Va., shipped last week a large consignment of plows and machinery to Australia.

BALTIMORE DRY-DOCK CO.**Rapid Success and Complete Equipment of a Southern Enterprise.**

A little more than one year ago the Baltimore Shipbuilding & Dry-Dock Co. was incorporated, and purchased the plant of the Columbian Iron Works & Dry-Dock Co. of Baltimore, which had been in the hands of receivers. At the time the deal was closed only about seventy men were employed at the works, but the new company immediately instituted such an enterprising and aggressive policy that a large amount of business was speedily secured for the establishment, and it now has employed about 700 men. Since the change of ownership the works have been equipped with machinery operated by electricity, with which they are abundantly supplied by their new power plant, and compressed air is also employed throughout the entire yard for operating drills, hammers and chippers. The company does all kinds of iron and steel shipbuilding and repair work. It has complete facilities for docking vessels, with every modern appliance at hand to insure the rapid and satisfactory completion of such work. The site of the plant adjoins Fort McHenry on one side and the Locust Point terminals of the Baltimore & Ohio Railroad on the other. There are fourteen acres of ground in the tract, and 2400 feet of water front, in which there are commodious piers. The company's dry-dock is of the Simpson type, 470 feet long. To protect its buildings and other property the company has its own steam fire department.

Among the vessels which have been constructed at these works are the United States cruisers *Montgomery*, *Detroit* and *Petrel*, the revenue cutter *Seminole*, the torpedo-boats *Foot*, *Rodgers*, *Winslow* and *Tingey*, besides the steamer *Maverick*, which latter was built for the Standard Oil Co. At present the works are engaged on a very large dry-dock repair job in repairing the broken propeller and shattered bottom plates and stern frame of the Norwegian steamship *Hero*, besides making a number of other repairs to and thoroughly overhauling the vessel at a cost of between \$70,000 and \$80,000. She is now owned by the Merrick & Chapman Wrecking Co., and her name has been changed to *Success*. The new steamer *Queen Caroline* was recently completed at the works, and was delivered to her owner, the Queen Anne Railroad Co., promptly at the contract time, delivery being made on the very day named. A description of this vessel was published in the *Manufacturers' Record* at the time she was launched.

To insure the speedy and accurate completion of its contracts the Baltimore Shipbuilding & Dry-Dock Co. has equipped itself with not only the most modern labor-saving machinery and tools propelled by either electricity or compressed air, but maintains a skillful and experienced technical staff, which has charge of its operations. The works, although situated near the entrance to the harbor, with all the advantages of deep water at their wharves, are nevertheless within quick reach of the center of the city, being only fifteen minutes distant by street car from the heart of the business section. Mr. J. Quitman Lovell is president, and Mr. J. Triplett Haxall, secretary and treasurer of the company, while Mr. Henry Konitzky, who is well known throughout shipbuilding circles on this coast, is in charge of the yard itself.

Robert S. Rowell of Constantinople writes to the *Manufacturers' Record* that he desires to get in touch with American exporters of leather for boots and shoes, linoleum and oilcloth, biscuits, perfumes, lamps and novelties.

RAILROADS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

THROUGH SUGAR LANDS.**A Passenger and Freight Road to Be Built in Louisiana.**

Mr. M. D. Bringier writes from Donaldsonville, La., to the *Manufacturers' Record* as follows:

"Surveys have been completed and lines established for the construction of a standard-gauge railway 12.3 miles long from Donaldsonville, La., traversing a line almost parallel to Bayou Lafourche, along the west bank of that stream, passing back of the levee to Paincourtville, where the line forms a tangent to the bayou's course, and reaches Napoleonville on a direct line from that point. M. D. Bringier is the promoter and engineer of the project, and through the generosity of many property-holders rights of way were obtained which permitted a course devoid of sharp curves and possessing the shortest possible mileage consistent with touching the best interests throughout the fertile valley. The location of this roadbed throughout is across high and thoroughly-drained cane land, all in a prime state of cultivation, and the liberal width of the right of way will permit the construction of a modern road built of the heaviest steel and in a most thorough manner, rendering the line capable of operating high-speed passenger schedules and heavy freight traffic.

"There will be more than nine miles of spur tracks, extending to the eleven modern sugar factories along the line. These sugar factories buy annually 304,000 tons of cane from the many small plantations, which will be greatly facilitated by switches on each of these properties. The line will pass through 41,000 acres under the highest state of cultivation, and will be called upon to transport more than 60,000,000 pounds of sugar and molasses annually, together with the fuel, plantation supplies and general mercantile freights of the sections.

"The outlet facilities are most favorable, as the line will have an interchange of freight-car service with the Southern Pacific Railway at Napoleonville, with the International & Great Northern Railway (projected and building by the Gould system from Beaumont, Texas) at Paincourtville, and with the Texas & Pacific Railway at Port Barrow (opposite Donaldsonville), with its terminal on the Mississippi river front at a point seventy-three miles above New Orleans. The largest ocean steamships can come up the river from the Gulf to the wharves which the company will build.

"There is a population of something over 15,300 along this line, in which is held the greatest financial resources and property value per capita of any rural district in this country, and the heavy passenger traffic resulting therefrom will demand the best facilities for handling, to which end high-speed schedules at close intervals will be maintained by elegant passenger coaches equipped with individual steam motors, which operate almost noiselessly and give rapid and reliable service.

"The main line of this road will be completed and in operation by October 15, and will handle the crop this season."

Continuing, Mr. Bringier also sends the following information:

Meyer Lemann will be president; Dr. William M. McGalliard, secretary and treasurer, of the company, with Mather D. Bringier, manager and chief engineer. The contracts for grading and tracklaying will be ready to close within thirty days. The main line will be graded to

an average elevation of eighteen inches throughout over flat, cultivated cane fields, no low bottoms or sloughs being on the course. There will be one fill, crossing the Texas & Pacific Railway, 1000 feet in length, rising to ten feet elevation on a 1 per cent. grade on each side of the Texas & Pacific track. There will be one railroad crossing at 75 degrees angle, and the installation of sixteen switches. The rails will be 60-pound steel, and the company proposes putting in 238 culverts of 36-inch vitrified pipe instead of the ordinary wooden construction.

The equipment is to consist of one compound oil-burning locomotive of 108,000 pounds weight, with six drivers, 54-inch centers, and a tractive capacity of 2475 gross tons; it will have Vanderbilt furnaces; six compound oil-burning steamers, which are light passenger coaches equipped with individual steam motors, or there may be substituted small compound oil-burning locomotives capable of handling two light passenger cars at thirty miles per hour; forty standard-gauge flat cars, with side stakes; ten standard box cars, four light passenger cars and one hand car.

For the line there will be bought 1300 tons of 65-pound first quality steel rails and 800 tons 56-pound second-hand rails, sixteen spring split switches, with high signal automatic switch stands; one 90-degree, one 75-degree and one 45-degree crossings, 4578 angle plate joints, with six bolts each; 3200 fish plate joints, with four bolts each; 700 kegs of spikes, and a further equipment of rail braces, 60,000 cypress or heart pine cross-ties and 7800 running feet of vitrified pipe.

IMPORTANT ELECTRIC ROAD.**Graham, Burlington & River Falls Line to Carry Much Freight.**

Concerning the Graham, Burlington & River Falls Street Railway Co., recently incorporated by J. W. Menefee, J. A. Long and J. C. Simmons, Mr. E. W. Myers, civil engineer, writes from Greensboro, N. C., to the *Manufacturers' Record* as follows:

"The charter received from the State grants to it the privilege of constructing electric railroads for freight and passenger business anywhere in the county of Alamance, together with some other things which will be a source of considerable revenue if the road is built.

"As at present surveyed the road will extend from Burlington to and through Graham, the county-seat of Alamance county, to Haw River, a total distance of a little more than six miles, the three towns named having a population of about 10,000. Branching from this line at Graham is a line about fifteen miles long down Haw river, passing through the manufacturing villages of Swepsonville, where the large cotton mill of the Virginia Manufacturing Co. is located, and Saxapahaw, where is located the cotton mill operated by White, Williamson & Co., and beyond this latter place to River Falls, one of the finest undeveloped water-powers in North Carolina. This will be for the present the terminus of the road, and it is the intention of those owning this site to develop it and to either sell part of the power to the railroad company for the operation of the road and utilize the remainder for the operation of a large cotton mill or to use all the available power for this latter purpose. Haw river is at present one of the greatest manufacturing streams in North Carolina, many of its water-powers being used for the operation of cotton mills, but many of the finest of the powers are as yet undeveloped, owing partly to a lack of capital in the hands of the owners, and more largely on ac-

count of inaccessibility. The White-Williamson Company and the Virginia Company have to haul by wagon, over dirt road, every pound of material which either comes into or goes from the mills. This in itself would represent a not inconsiderable source of revenue to the road, and both of these mills are now making preparations to double their capacity, and work has begun at one of them.

"The officials of the road have had an accurate census taken of the whole tributary countryside, and we now have on file accurate information as to every pound of freight which has been going into that section or coming from it, so that the matter of revenue can be reduced to a sum in addition, so far as freight business is concerned, and the road would pay, even with no increase.

"The country is heavily timbered with virgin forests of white oak and hickory, with some pine. All this has been accurately estimated, and many contracts have been signed by the owners to furnish to the company a certain number of carloads of wood or timber.

"The line also runs through a very fine agricultural country, and it will be the policy of the management to encourage the farmers to diversify the farm products to the greatest feasible extent, and endeavor to build up a business in trucking, market-gardening, dairying, small-fruit growing, etc., which will be of mutual benefit to the company and to the farmers.

"The road will also encourage the further development of manufactures not only of cotton, but also in those lines in which wood is used, for the natural facilities for this industry are unsurpassed anywhere in the Southern States. The road will be equipped with heavy rails, and all work will be done in a permanent manner. No contracts have as yet been let, but it is probable that they will be at an early date."

Arkansas & Choctaw Purchase.

Mr. B. L. Winchell, vice-president and general manager of the St. Louis & San Francisco Railroad Co., writes from St. Louis to the *Manufacturers' Record* as follows:

"It is not true that the Frisco Company has purchased the Arkansas & Choctaw Railway Co. The Choctaw Construction Co., building that line, has passed into the hands of parties, many of whom are largely interested in the Frisco road. I am advised that it is true an extension will be built eastwardly from Ashdown to Hope or Stamps, Ark., but I do not understand that this matter has been definitely decided. Mr. James Campbell of St. Louis has been elected president of the construction company, and Capt. J. F. Hinckley, supervising engineer."

Other advices from St. Louis report that the Arkansas & Choctaw Railway Co. has been reorganized by the election of the following directors: Judge H. S. Priest, F. E. Marshall, John P. Newell, F. H. Hamilton and James Campbell. Mr. Campbell is a director of the Frisco, and Mr. Hamilton is secretary and treasurer. Mr. Campbell was elected president, and it is stated that the officials of the Frisco will in due course of time take over the operation and management of the line.

A dispatch from Madill, I. T., says that Johnson Bros., the contractors on the Arkansas & Choctaw, have let sub-contracts for grading on the Ashdown and Hope extension, and for an extension from Scullin, I. T., on the main line of the St. Louis & San Francisco, to Sulphur. The proposed line from Sherman, Texas, to Lawton, Okla., will not, it is

said, be built, the purchase of the Arkansas & Choctaw rendering it unnecessary.

NORTH CAROLINA CENTRAL.

Plans for a 100-Mile Line from Concord to Fayetteville.

Advices from Concord, N. C., report that application has been made for a charter for the North Carolina Central Railroad, to run east from Concord to Fayetteville, passing through Cabarrus, Stanly, Montgomery, Moore and Cumberland counties, a distance of about 100 miles. It is said that this road will be built by the Carolina Colony Co., recently organized.

The construction of such a line as this would give the Atlantic Coast Line, which reaches Fayetteville, a very direct connection in the direction of the Tennessee coal fields, towards which sundry recent railroad projects appear to be aiming.

The incorporators of the North Carolina Central are Edward W. Shedd and J. Herbert Shedd of Providence, R. I.; F. W. Siebert of Waterbury, Conn.; W. T. Pratt of New York, W. L. Holt, A. H. Slocumb, H. W. Lilly, A. B. Williams, A. P. Vanstony and H. McD. Robinson of Fayetteville, J. C. Adams and J. W. McLaughlin of Raeford, W. W. Mills of Biscoe, B. A. Blue, C. N. Blue and J. McN. Johnson of Aberdeen, Jonas Cook and Paul Barringer of Mt. Pleasant, R. A. Brown, Morrison H. Caldwell, H. L. Parks, Giles T. Crowell, J. D. Barrier, J. K. Patterson, H. C. Herring, R. W. Bigger and M. B. Stickley of Concord.

Resorts Along the 'Frisco.

The passenger department of the St. Louis & San Francisco Railroad Co. has issued a beautifully illustrated pamphlet descriptive of resorts along the 'Frisco system. The book describes a number of hunting, fishing and health resorts in the Ozark region of Missouri and Arkansas, and also in Kansas and the Indian Territory, besides one or two in Mississippi. Among the places pictured are Eureka Springs, Ark.; Springfield, Arlington, Lebanon, Ha Ha Tonka Park and Graydon Springs, Mo.; Baxter Springs and Gueda Springs, Kan.; Rogers, Monte Ne, Fayetteville, Winslow and Mammoth Springs, Ark.; Antlers and Sulphur Springs, I. T., and Greenwood Springs, Miss. The sportsman would be able to find ample employment for either the rod or gun at one or another of these resorts, while those in quest of rest or health can have their wishes and needs satisfied at all of them. The Ozark region has long been famous for its climate; the country is high, being from 1000 to 3000 feet above the sea-level, abounding in forests, mountains, lakes and rivers, in which a great variety of game is abundant. Bryan Snyder is general passenger agent of the St. Louis & San Francisco Railroad; office at St. Louis.

Rock Island's Line to the Gulf.

Advices from Fort Worth, Texas, quote General Attorney Lassiter as saying that the Chicago, Rock Island & Texas Railway will begin work on the line from Fort Worth to Dallas as soon as rights of way can be secured, and that the Rock Island line to the Gulf will be laid with 80-pound rails. Vice-President and General Manager S. B. Hovey is also reported as saying that the line to the Gulf is a certainty. It is not yet settled whether it will be built to Galveston or some other port. A number of surveys have been made.

Louisville & Nashville Shops.

Mr. R. Montfort, chief engineer of the Louisville & Nashville Railroad Co., writes from Louisville, Ky., to the Manu-

facturers' Record, saying: "I beg to state that while the company has contemplated the erection of shops at South Louisville, it has not perfected its plans."

It was recently reported that the railroad would build general shops costing about \$1,000,000.

Macon Deal Closed.

The deal for the street railways of Macon, Ga., recently reported in the Manufacturers' Record, has been closed, the purchasers being the Savannah Trust Co. of Savannah, Ga.; John L. Williams & Co. of Richmond, Va., and J. W. Middendorf & Co. of Baltimore. The properties bought are those of the Macon Consolidated Street Railroad Co., \$500,000 capital and \$350,000 of 5 per cent. bonds, and the Macon Electric Light & Railway Co., \$100,000 capital and \$100,000 of 6 per cent. bonds. There is a total of about thirty miles of track. The roads will be consolidated and operated by the Railways & Light Co. of America, the headquarters of which are in Baltimore.

Railroad Notes.

Mr. H. A. Parker, vice-president of the Chicago, Rock Island & Pacific Railway, writes from Chicago, Ill., to the Manufacturers' Record saying that the Rock Island has not made any survey between Perry and Garber, Okla., as reported.

Mr. John Graham, president of the Camden Interstate Railway Co., writes from Huntington, W. Va., to the Manufacturers' Record, saying: "At the present time we do not contemplate any extensions or improvements. We cannot speak for the future, as we have not yet gone over the situation."

Mr. A. A. Allen, vice-president and general manager of the Missouri, Kansas & Texas Railway system, writes to the Manufacturers' Record from St. Louis as follows: "There is absolutely no truth in the rumor that this company has purchased seventy-five acres of land at Guthrie, O. T., upon which it intends erecting shops, roundhouses, etc."

Mr. J. T. Harahan, second vice-president of the Illinois Central Railroad Co., writes from Chicago to the Manufacturers' Record regarding its rumored purchase of a lumber line in Mississippi, saying: "We have not purchased the railroad of the Pearl River Lumber Co. as yet, but have that right, and have given notice to that company that it is our intention to do so."

Mr. C. P. Young, general manager of the New Orleans & Southwestern Railroad Co., which is to build a line from Thibodaux, La., southward to Montegut, La., writes to the Manufacturers' Record confirming the report that Garvey, McGee & Co. of St. Louis are contractors for the whole roadbed, embracing seventy-seven miles. Most of the contracts have been awarded for the entire road, and the company is now getting ready plans and drawings for all buildings.

Messrs. J. P. Stovall, T. J. Wilkins, J. W. Cunningham and others who are closely identified with the interests of the Merchants and Farmers' Bank at Macon, Miss., propose organizing a cotton mill.

A charter has been issued to the Apalache Mills of Greer Depot, S. C., the incorporators being Messrs. Lewis W. Parker of Greer Depot, S. C.; F. J. Pelzer of Charleston, S. C., and F. J. Englesby, also of Charleston. Capital stock is \$350,000, and the purpose is to manufacture cotton goods. Mr. Parker is president and treasurer of the Victor Manufacturing Co., and it is believed the Apalache Mills is a rechartering of that enterprise.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Completing a \$200,000 Mill.

Molohan Manufacturing Co. of Newberry, S. C., expects to begin production by August 1. This company's plant has been under construction during the past year, and its first annual meeting of stockholders was held during the past week. Directors were elected as follows: Jas. McIntosh, D. H. Wheeler, Geo. W. Summer, Z. F. Wright, C. E. Summer, Jas. M. McCaughin of Newberry, Seth M. Miliken of New York, Edward F. Greene of Boston and E. B. Wilbur, who originated the enterprise. Geo. W. Summer is president; Mr. Wright, secretary, and Mr. Wilbur, vice-president, superintendent and manager. The company is capitalized at \$200,000, and its output will be fancy white goods. Buildings are all completed, and 11,000 spindles, 300 looms and a modern steam plant are about ready to operate.

Another \$200,000 Mill.

Announcement was made recently that Dr. H. A. Ligon of Spartanburg, S. C., had decided to organize a \$200,000 cotton-mill company. The enterprise is now entirely assured of establishment, and during this week the company obtained articles of incorporation under the title of Arcadia Mills. The incorporators met this week and elected the following directors: Messrs. H. A. Ligon, John B. Cleveland, E. D. Foster, G. M. Whitin, Smith of Glenn Springs, S. C., and T. E. Moore of Wellford, S. C. Messrs. C. R. Makepeace & Co. of Providence, R. I., have been appointed architects in charge of planning, erecting and equipping. The plant will have from 10,000 to 15,000 spindles. Dr. Ligon has been elected president and treasurer. The remaining necessary details are now under consideration.

Woodside Cotton Mills.

It was announced in May that Woodside Cotton Mills of Greenville, S. C., was to be organized, with capitalization of \$200,000, for building a cotton factory. No steps have as yet been taken to effect permanent organization, but the company expects to do so in the near future. John T. Woodside is the active promoter of the enterprise, and will be its president, while J. D. Woodside will be treasurer. The incorporators include Messrs. J. L. Orr and J. H. Morgan, both presidents of cotton mills; G. A. Norwood, Hamlin Beattie and Henry Briggs, bank presidents, and other prominent business men of the city. Details are now under consideration, and will probably be announced soon.

A \$12,000 Enlargement.

Berkley Knitting Mills of Berkley, Va., has decided to expend about \$12,000 for improvements. The company begun the erection this week of an additional building 40x75 feet, two stories high, which increases floor space to a total of about 15,000 square feet. Fifteen additional knitting machines and sewing machines to suit will be installed, increasing capacity about 50 per cent., which makes the output between 600 and 700 dozen per day. A new boiler and engine house with new 60-horse-power steam plant installed was completed recently. W. S. Baillie, Jr., is manager.

Textile Notes.

The Highland City Mills of Talladega, Ala., intends to expend about \$6000 for

improvements to plant. This company now has 5376 spindles operating on the production of hosiery yarns.

L. S. Roan and W. T. Roberts of Fairburn, Ga., have purchased Hutchison Manufacturing Co.'s cotton mill at Banning, Ga., and will continue the plant. Its equipment is 5000 spindles for manufacturing warps, yarn and rope.

McComb City (Miss.) Cotton Mills is installing additional machinery, including 1000 spindles, forty looms, intermediate, etc. Probably about \$15,000 is being expended. The company has been operating 5000 ring spindles and 180 looms.

Dr. John Threadgill and Clarence Bennett of Oklahoma City, O. T., will arrange the removal of an Independence (Mo.) cotton-twine mill to their city. The new industry is to employ from 75 to 100 hands. Other details are not determined yet.

Inman Cotton Mills, Inman, S. C., mentioned last week, was incorrectly reported as to number of spindles and looms. The plant will have 18,396 spindles and 444 looms, and its authorized capital is \$500,000. The machinery will be driven by electricity.

The directors of Victor Cotton Mills of Charlotte, N. C., have passed a resolution advising a change in capital stock from \$150,000 to \$250,000. A meeting of stockholders has been called for August 12 to vote on this proposition. Probably enlargements are contemplated.

Lumberton (N. C.) Cotton Mills held its semi-annual meeting this week, and the management reported that during the six months the plant has been in operation it has earned about 15 per cent. profit. The company is capitalized at \$75,000, and operates 5000 ring spindles on the production of hosiery yarns.

Premier Cotton Mills of Helena, Ark., is now busily engaged installing machinery in its plant. The company is expending about \$75,000 to double the capacity of its mill. Announcement was made last March that the company had decided on this increased investment and had let contract for the improvements. The company will have 10,000 spindles operating when this installation is completed.

The second instalment of machinery is arriving at Gainesville, Ga., for mill No. 4 of the Pacolet (S. C.) Manufacturing Co. It is being put up in position as rapidly as possible, and when all in place will give the company its original equipment as was designed. This latter is 50,000 ring spindles and 2400 looms for manufacturing standard sheetings and drills. This branch mill represents a \$1,000,000 investment.

QUOTATIONS OF COTTON YARNS.

By Buckingham & Paulson, New York, Philadelphia and Chicago, July 15.

No. 10s-1 and 12s-1 warps.....	13 1/2 @ 14
No. 14s-1 warps.....	14 @ 14 1/2
No. 16s-1 warps.....	14 1/2 @
No. 20s-1 warps.....	15 @
No. 22s-1 warps.....	15 1/2 @
No. 26s-1 warps.....	16 @
No. 6s to 10s yarn.....	13 1/2 @
No. 12s-1.....	14 @
No. 14s-1.....	14 @ 14 1/2
No. 16s-1.....	14 1/2 @
No. 20s-1.....	15 @
No. 22s-1.....	15 @
No. 26s-1.....	16 @
No. 8s-2 ply soft yarn.....	13 1/2 @
No. 10s-2 ply soft yarn.....	14 @
No. 8s-2 ply hard.....	13 1/2 @
No. 10s-2 ply hard.....	13 1/2 @
No. 12s-2 ply hard.....	14 @
No. 14s-2 ply.....	14 @ 14 1/2
No. 16s-2 ply.....	14 1/2 @
No. 20s-2 ply.....	15 @
No. 24s-2 ply.....	16 @
No. 26s-2 ply.....	16 1/2 @
No. 30s-2 ply yarn.....	17 @
No. 40s-2 ply.....	21 1/2 @ 22
No. 8s-3, 4 and 5 ply.....	13 1/2 @
No. 20s-2 ply chain warps.....	15 @
No. 24s-2 ply chain warps.....	16 @
No. 26s-2 ply chain warps.....	16 1/2 @
No. 30s-2 ply chain warps.....	17 @
No. 16s-3 ply hard twist.....	14 1/2 @
No. 20s-3 ply hard twist.....	15 @
No. 26s-3 ply hard twist.....	16 @ 16 1/2

Market very dull; prices nominal.

Cottonseed-Oil Notes.

The Phoenix Cotton Oil Co. of Memphis, Tenn., has amended its charter by increasing its capital stock from \$50,000 to \$200,000.

The Tillar Oil Mill Co. of Tillar, Ark., has been organized, with a capital stock of \$35,000, all taken. The company is in the market for a complete outfit of the best machinery.

The Verner Oil Co. at Lattimore, N. C., capitalized at \$12,600, has let the contract for building a cottonseed-oil mill. The company has purchased mill machinery, engine and boiler, and is in the market for electric-light plant and building material.

The St. Louis Oil Mill Co. of St. Louis, Edgecomb county, North Carolina, has been chartered, with a capital stock of \$25,000, the stockholders being farmers of that section. The leading incorporators are Dr. R. E. Pitt, W. P. Mercer, Robert Walston, S. E. Walston, J. E. Cobb and others.

The market for cottonseed products in Texas was quiet last week, with values about steady. Prime crude oil, loose, was quoted at 35 cents, and prime summer yellow, 38 cents; linters, 2½ to 2¾ cents, all f. o. b. mills at interior points in the State. Prime cottonseed cake and meal was quoted at \$24.25 per ton f. o. b. Galveston.

The Kershaw Oil Mill Co. of Kershaw, Lancaster county, South Carolina, has been chartered, with a capital stock of \$25,000. The company proposes to do a general cottonseed-oil business. The incorporators of the company are J. F. O'Brien, J. T. Stevens, R. L. Blackmon, S. W. Heath, J. M. Carson, T. J. Gregory and W. F. Cook.

Work on a new cottonseed-oil mill at Fort Valley, Ga., is now under good headway, and will be ready for business about October 15 next. The capital stock of the company is \$25,000, all paid in. Mr. A. J. Evans of Fort Valley is president of the company. The directors are J. P. Heath and W. L. Houser of Fort Valley and T. J. Fields and William B. Ellis of Freehold, N. J.

The board of directors of the Palestine Cottonseed Oil Co. met last week at Palestine, Texas, when the following officers were elected: C. A. Wright, president; B. H. Gardner, vice-president; Newell Kane, secretary; Lucius Gooch, treasurer. This company owns the mill at Palestine and one at Jacksonville, and its affairs are in good condition, as shown by the reports of the different officers.

It is reported that the Arkansas Cotton Oil Co. of Little Rock, Ark., has awarded contracts for the \$150,000 worth of buildings and improvements to be made in its plants in North Little Rock, England and Fort Smith. A large warehouse is being erected in North Little Rock at a cost of \$20,000; a new mill of sixty tons capacity is being erected in England, and the Fort Smith mill is being fitted up with new machinery throughout.

The following are the official quotations on cottonseed and cottonseed products as posted at the Cotton Exchange in New Orleans on the 14th inst.: Prime refined oil in barrels, 43 cents per gallon; off refined oil in barrels, 42 cents per gallon; prime crude, loose, 36 cents per gallon; prime cottonseed cake, \$27 per ton of 2240 pounds; off do., nominal; prime cottonseed meal, \$27 per ton of 2240 pounds; off do., nominal; soap stock, none; linters, per pound—A, 3½ cents; B, 3¼ cents; C, 3¼ cents; cottonseed in sacks delivered in New Orleans, \$16 per ton of 2000 pounds; in bulk delivered in New Orleans, \$15 per ton of 2000 pounds.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.**Baltimore.**

Office Manufacturers' Record,
Baltimore, Md., July 16.

The week under review has been moderately active, while the volume of business continues to show no material increase, several conditions restricting operations to a greater or less degree. In the building line there is a fair demand for material, and from yardmen and out-of-town dealers there is a fair inquiry. The general features of the lumber market are considered promising for a steady and substantial business during the summer months. North Carolina pine men report the transactions of the week as encouraging, the demand being steady, without a great degree of activity. Stocks at milling points in Virginia and Eastern Carolina are ample for the present demand, and throughout the list of values there is a steady tone present. In cypress there is a fair movement, with prices steady and stocks moderate. White pine continues firm, with no urgent demand at the moment. The demand for poplar is fair, and prices steady. There has been considerable poplar selling for domestic use, while the foreign demand is not so urgent, stocks in European markets being fully ample for present requirements. In all hardwoods there is a fair output in a domestic way, and also some foreign inquiry. Stocks of dry lumber at mills in West Virginia and other sections are scarce, and such lumber is firmly held by manufacturers. Foreign lumber exporters are making the usual shipments, but berth room is scarce, and the situation on the other side shows but little change for the better.

Norfolk.

[From our own Correspondent.]
Norfolk, Va., July 14.

The midsummer movement, which in most industries shows a moderate volume of trade, is at present fairly active in the lumber and timber business of this section. There is a fairly good demand for lumber, especially for the better grades, and from the North and Middle West there is a steady flow of substantial orders for lumber for prompt and near delivery. In North Carolina pine the business shows but a slight falling off in certain lines, but the general movement is satisfactory. Stocks at mills show no accumulation of any moment, and shippers generally are well satisfied with the outlook. The general list of values is decidedly firm, and the record of cargo shipments, as well as those by rail, is a good index of the healthy tone of business. The local demand for lumber is quite an item here, and builders and others are purchasing freely to make city and suburban improvements. The builders' strike has restricted operations, but once this is over there will be a season of activity unusual in character, as the movement in real estate and general progress throughout the city and at suburban points is at present showing considerable volume. In hardwoods business shows a fair degree of activity, there being a good inquiry both from domestic and foreign sources. Among planing mills and other woodworking concerns business is better than usual, all being well supplied with orders. Freight rates on lumber continue above shippers' views, and the offering of vessels only moderate, thus preventing any unusual movement in the shipment of lumber.

Savannah.

[From our own Correspondent.]
Savannah, Ga., July 14.

The lumber market during the past week has been quiet, with a moderate volume of business reported. The demand for lumber is not urgent. There is, however, considerable moving, and with a better offering of desirable tonnage and lower rates of freight shipments would show a material increase. During the past week 3,265,000 feet of lumber left this port. Along the river there is considerable activity in the lumber trade; planing mills are being established and sash, door and blind factories are all busy on orders. The tone of the lumber market is firm, with minimum easy-sized yard stock \$14.50 to \$15; car sills, \$16 to \$19; ship stock, \$23; sawn ties, \$12 per 1000 feet; hewn ties, 7x9x8½, quoted steady at 40 cents each; switch ties, \$12.50. At Brunswick the movement in all branches of the lumber trade continues active, and the total business for July is expected to exceed any month so far during the present year. The crosstie industry is unusually active, with large shipments and a sharp demand from railroads. The foreign timber and lumber trade at Brunswick shows excellent form at the moment; a number of vessels are loading, and several under charter to arrive to load for foreign ports. At all milling sections stocks continue to show but little accumulation, and in some cases they are light and badly assorted. The offering of tonnage is very light, with rates steady. Among the charters reported are the following: British schooner Arthur M. Gibson, 296 tons, from Brunswick to Canary Islands with lumber at \$9.75; schooner A. C. Stubbs, 295 tons, from Brunswick to New York or Boston with dry cypress on private terms, and schooner Andrew Adams, 712 tons, from Fernandina to Providence with lumber at \$5.25.

Mobile.

[From our own Correspondent.]
Mobile, Ala., July 14.

The movement in timber and lumber circles throughout this section may be written fairly active, with values showing a hardening tendency. The volume of business continues liberal, and in sawn timber the market is firm, with sales of 30 cubic feet average during the past week at 17 cents, with quotations 15½ to 16½ cents, as to average and condition. There is a good demand for logs, cypress being quoted 7 to 12 cents per cubic foot; ash under twenty inches \$6 per 1000 feet, and over twenty inches \$8 to \$12; poplar logs, \$8 to \$12; oak, \$8 to \$12, and cottonwood, \$4 to \$5 per 1000 feet. Hewn timber is firm, with a light supply, at 15½ to 16½ cents per cubic foot, last sales being at 16¼ cents. Pine logs are very scarce, the low water in rivers along the Gulf coast interfering with the supply. The lumber trade is in good condition, and along the Pearl river district in Mississippi prices are firm and higher, while all the mills are crowded with orders. At this port mills are all engaged when logs are to be had, and there is a sharp demand for all desirable grades of lumber. The shipments from this port last week were as follows: Brig Due Sorelle B. for Cardiff, Wales, with 72,383 cubic feet of sawn timber, 29,943 cubic feet of hewn timber and 26,066 superficial feet of lumber; bark Mercutor for Dorset, England, with 3640 cubic feet of sawn timber and 280,183 feet of lumber; bark Giovane S. for Genoa, Italy, with 49,221 cubic feet of sawn timber and 38,420 feet of lumber; bark Winifred for Port Natal, South Africa, with 48,192 cubic feet of sawn timber and 59,685 feet of lumber. Several large shipments of lumber were made to Mexico and Central America. The

timber market at Pascagoula and Pensacola is nominal at 15½ to 16 cents, with stocks on the market very light. It is officially announced that Elder, Dempster & Co. will put a line of steamers from this port to European ports, beginning September 1. It is understood the concern has contracted to furnish sufficient vessels for the handling of all freight offering, and to put Mobile on a parity with New Orleans as to freight rates. In anticipation of the increased business to be developed by reason of this line, the Mobile & Ohio Railroad on the 10th inst. began the betterment of its terminal facilities, and will build a new pier, with warehouse and ample trackage to handle all business offering for export by this line.

Memphis.

[From our own Correspondent.]
Memphis, Tenn., July 14.

Throughout the Memphis section all matters relating to the lumber industry continue to show a fair degree of activity. As usual at this period of the season, the market is generally quiet, while a number of prominent millmen and dealers are out of town. There is, however, a substantial trade in progress, and in hardwoods especially the market is generally firm, and values throughout the list show a hardening tendency. Receipts all along the line are light, and but barely sufficient in some cases to supply the demand. The advance in yellow-pine lumber, which becomes effective about August 1, will not affect the local market to any extent, as Memphis dealers draw supplies mostly from the Mississippi mills, the lumber being of superior finish and commanding its price in the market. Yellow pine for framing is now quoted about \$12 to \$15 per 1000 feet in carload lots, and clear yellow pine for finishing purposes brings from \$22.50 to \$27.50 per 1000 feet. Memphis lumbermen are always progressive, and the latest enterprise reported is one of considerable magnitude. It is the intention of a number of prominent lumbermen of this city to build a lumber railroad from Armory, Miss., on the Kansas City, Memphis & Birmingham Railroad, to Burnsville, Miss., on the Southern Railway, a distance of fifty miles, for the purpose of developing the vast pine-timber interests of the extreme northeastern counties of Mississippi. The contract for the work has been let, and it is stated operations will be begun within a few weeks, as the survey has already been made. The Lumbermen's Club of this city has discontinued its regular meetings until the first Saturday in September on account of the warm weather and the absence of some of its members on their vacation.

Beaumont.

[From our own Correspondent.]
Beaumont, Texas, July 16.

The week just past is notable locally for the fact that the Bartholomew Lumber Co.'s saw-mill has started up, and is now cutting lumber. This is the first modern band-saw hardwood mill in Texas, and is therefore the beginning of an epoch in the history of the State. East Texas contains 100,000,000 feet of hardwood timber in ten counties, and yet there has been no effort until now to cut a foot of it. The reason given by the owners has been the cost of getting the product to market, but this is being overcome in the increased water-shipping facilities and the new lines of railroad that are coming into this section. The Texas trade has increased wonderfully from all Southeast Texas and Southwest Louisiana points during the last ten days, due, it is stated, to the fact that the rains fell in abundance and made crops better in almost every section. The prices of yard and planing-mill stock are holding up well,

and in many cases an advanced list is being maintained, though this is not general. The tie and timber demand is strong, and the prospective building of many new railroads in this State during the fall is going to add another stimulant to the prices, which are already well up in the counting. The stringer base of \$13.50 will be maintained easily through the summer, and may be advanced as soon as the sun begins to cool off things by shying to the south of the equator.

Lumber Notes.

The Minchenor & Henderson Spoke Factory at Huntsville, Ala., commenced operations on Monday last. This is one of the largest plants of its kind in the South, employing 200 hands.

The Mechanics' Lumber Co. has opened up a large warehouse at Little Rock, Ark., and will handle lumber, shingles, lath, sash, doors, blinds, etc. Mr. A. B. Beler has been appointed manager of the enterprise.

The Mahanah Lumber Co. of Brownsville, Tenn., has been chartered, with a capital stock of \$10,000. The incorporators are Albert E. Mahanah, R. M. Chambliss, G. B. Williams, J. H. Bennett and Mann Willis.

The Stone-Huling Lumber Co. of Bristol, Va., has in contemplation the erection of a large lumber plant and lumber sheds at Radford. If the enterprise is carried out it will contribute largely to the volume of business in that place.

It is stated that from 2,000,000 to 3,000,000 oak staves for oil and whiskey barrels are now being shipped from Flemingsburg, Ky., to Ohio and Michigan. A large number of oak and walnut trees are also being cut and shipped.

Mr. W. D. Hurlbut has been appointed traffic manager of the National Hardwood Lumber Association, with headquarters in Old Colony Building, Chicago, Ill. Mr. Hurlbut will have general charge of all matters relating to transportation.

The Standard Naval Stores Co. of Hancock county, Mississippi, has been chartered, with a capital stock of \$10,000. The incorporators are Levi Anderson, John C. Gorham and associates. The company will manufacture rosin, tar, pitch, turpentine, etc.

The Danville Lumber & Manufacturing Co. at Danville, Va., is now enjoying a very successful business, and under its present management extensive preparations are being made to enlarge its plans of operation. The company makes a specialty of sash, doors and blinds.

The Victor Lumber Co. of Pulaski, Va., has built a large machinery house behind its lumber-yard. Some of the machines have already arrived, and in ten days the company will commence the manufacture of doors, sash and blinds, etc. The company has a number of orders on hand.

The Blue Ridge Lumber Co. of Woodlawn, McDowell county, North Carolina, has been chartered, with a capital of \$100,000. John R. Cochran of Tom's River is the principal stockholder, the others being Charles W. Lindsay of New York and George V. Sheppard of New Jersey.

Louisville capitalists have bought 5000 acres of fine mountain timbered land on the headwaters of the Cumberland river near May King, Ky. The syndicate will put up five saw-mills at once and commence operations in cutting the timber. The lumber will be hauled overland to Stonega, Va., for shipment.

The following vessels were among the clearances last week from Jacksonville, Fla.: Steamship Comanche for New York with 300,000 feet of lumber, 3400

cross-ties and other cargo; schooner J. H. Jackson for New York with 440,000 feet of lumber, and schooner Georgia for Dorchester, N. B., with a full cargo of lumber.

The city council of Bowling Green, Ky., last week granted free taxes for five years to the Turner, Day & Woodworth Company on a large brick warehouse it contemplates erecting in that city. The factory to be erected is to manufacture axe-handles, the company having twenty-five such factories in different parts of the country.

Messrs. Dubois & Bond have about completed the mill buildings of their extensive lumber plant near Bloomington, Md., and as soon as a portion of the railroad is completed the firm will commence to place their machinery and get out timber. They expect to take out at least 10,000,000 feet of timber from along the Savage river.

The Dixon Lumber Co. of Savannah, Ga., has been incorporated for a term of twenty years. The company is authorized by its charter to conduct a general wholesale and retail business in timber and lumber, to conduct tram railways, etc. The new company will succeed to the business formerly conducted by the firm of Dixon, Mitchell & Co.

Shipments of lumber last week from Charleston, S. C., were as follows: Schooner Georgetta Lawrence for New York, schooner J. C. Strawbridge for New York with 634,948 feet, schooner James Boyce, Jr., with 491,000 feet, brig John McDermott with 412,000 feet, steamer Comanche with 50,344 feet, and steamship Carib for Boston with 23,594 feet.

At Devall Bluff, Ark., the Western Tie & Timber Co. has recently completed its loading machine, and will load from the barge to the car by means of an endless chain carrier, which works very rapidly. The Ayre & Lord Tie Co. is planning substantial improvements in the near future. The annual output of this company in bridge and railroad ties is from 6,000,000 to 8,000,000.

The Grover & Speights lumber-yard at Greenville, S. C., has been purchased by the D. W. Alderman & Sons Co. of Alcolu, and will in future be known as the Alderman Lumber-Yard. The plant of the D. W. Alderman & Sons Co. at Alcolu is one of the largest of its kind in the South. It consists of a planing mill with an output of 1,000,000 feet of dressed lumber per month and a saw-mill with a daily capacity of 100,000 feet.

The Atlantic Shook & Lumber Co., organized several weeks ago at Berkley, Va., has placed an order for the new machinery for its mills. Work will be started on the buildings about August 1, and the company expects to begin to operate about September 1. The buildings will be located partly on the property of the Tunis mills and the South Norfolk Co. The officers of the company are C. W. Rockefeller, president; W. W. Tunis, vice-president, and Thomas Black, secretary and treasurer.

At the midsummer meeting of the Southern Lumber Manufacturers' Association, held in St. Louis on the 9th inst., the question of prices was brought up by the committee on values. There will be no change in the present rates until after the crop situation becomes better developed. The officials of the association stated that the prices are likely to go higher, and that the rate on yellow pine would be increased about \$1 per 1000 feet. Prices are now on a better plane than last year, and an increasing demand for lumber is noted. The association adjourned to meet in midwinter at Memphis,

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., July 16.

There is a quiet tone in the local phosphate market, as usual at this period of the season. In all fertilizer ingredients the volume of trade is light. During the past week the following charters were reported: British steamer Laurelwood, 1505 tons, from Port Royal to Nantes, France, with phosphate at 12/3, July; British steamer Greatham, 1531 tons, from Tampa to United Kingdom or Continent with phosphate on private terms, and Italian steamer Citta-di-Messina, 1642 tons, from Tampa to St. Louis du Rhone and Port du Bone with phosphate on private terms. The domestic market in Tennessee is fairly active, and values well maintained. Buyers have been holding off for some time, but are now in the market for supplies for 1903. The labor question has retarded operations at Mt. Pleasant and other mining sections, but last week the arrival of a number of laborers from North Alabama and other points has relieved the situation to some extent. Both domestic and foreign rock are steady as to value. In Florida the situation is not materially changed. Active development in mining sections of the State is going steadily forward, and shipments from the mines are increasing. At all Florida ports shipments are keeping up fairly well. Several foreign shipments are scheduled for this month from South Carolina, and there is considerable activity in the Ashley river and other districts among miners. Of the foreign situation La Phosphate of Paris, in its issue of the 2d inst., says: "The situation is absolutely without change. On the European Continent buyers are sufficiently covered for the present, and we are now in the annual period of vacations—a dead season. Exportation is likewise affected by this periodical dullness in transactions. In the French market resales of the product of 'Soume' have had the effect of affecting injuriously producers, but these will probably take back a portion of their previous sales, and it is then to be presumed that this special market will maintain itself without any important modifications."

Fertilizer Ingredients.

The market for ammoniates is quiet, with values steady and unchanged. Eastern buyers are showing more interest, but their purchases so far are limited to present necessities. There is very little demand from Southern sources. Stocks in the West are firmly held by packers at outside figures.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)...	\$2 95	@ 3 00
Nitrate of soda, spot Balto....	2 15	@ 2 20
Blood	2 32 1/2	@ 2 35
Azotine (beef).....	2 40	@ 2 45
Azotine (pork).....	2 40	@ 2 45
Tankage (concentrated).....	2 15	@ 2 17 1/2
Tankage (9 and 20)....	2 35 & 10¢	2 37 1/2 & 10
Tankage (7 and 30).....	21 00	@ 22 00
Fish (dry).....	27 50	@ 30 00

Phosphate and Fertilizer Notes.

The prevailing scarcity of labor recently at the phosphate mines at Mt. Pleasant, Tenn., which has seriously restricted mining operations, has been partially overcome by the arrival of numerous parties of negroes from Tusculum and other points in North Alabama.

State returns give the following statistics showing the progress and development of the phosphate industry in Florida for thirteen years ending with 1900: 1888, 2813 tons; 1889, 7780 tons; 1890, 56,381 tons; 1891, 181,316 tons; 1892, 354,457 tons; 1893, 430,437 tons; 1894, 589,174 tons; 1895, 515,878 tons; 1896, 516,460 tons; 1897, 690,648 tons; 1898,

662,220 tons; 1899, 807,721 tons; 1900, 700,423 tons; total, 5,524,708 tons.

The board of directors of the Virginia-Carolina Chemical Co. of Richmond, Va., has declared a dividend of 2 per cent., being quarterly dividend No. 27 on the preferred stock of this company, payable July 15, 1902. The books for the transfer of stock will be closed from June 26 to July 16, both days inclusive.

One of the latest industries of Mobile, Ala., is the plant owned by the Southern Oil & Chemical Co. for the extraction of the various oils and constituents of yellow-pine wood and the manufacture of different products from the oils and substances so extracted. The company has met with much success so far, and present indications are that an enlargement of the plant will soon be necessary to meet the increasing demand for the products. The officers of the company are Benjamin Vincent, president; Charles Pearce, vice-president, and J. J. Mallonee, superintendent.

The Virginia-Carolina Chemical Co. of Richmond, Va., closed its fiscal year on June 14, and the record for the twelve months is very encouraging. The gross profits for the year ending June 14, 1902, were \$4,143,471.01, less amount charged off for repairs and depreciation, \$662,086.62, leaving net profits for the year \$3,481,384.39; less dividends paid on preferred stock, 8 per cent., \$960,000; dividends paid on common stock, average 4.20 per cent., \$869,649, or a total of \$1,829,649, leaving a balance of \$1,651,735.39 carried to credit of undivided profits. The average number of shares of common stock outstanding for twelve months was 206,582; earnings on same after paying dividends on preferred, \$12.20 per share.

About thirty of the leading saw-mill men of Florida met last week at Jacksonville to discuss a proposed revision in the rules of inspection of yellow pine with a view to securing a more liberal ruling. Lumbermen at present regulate their cut under the Savannah merchantable rules of 1883. There is a movement to revise these rules, as they are regarded as too severe for present conditions. These rules were considered and carefully gone over, several very important changes being recommended and adopted. To secure the desired change the Florida lumbermen intend to present their recommendations to the only organized association of lumbermen in this section, which is the Georgia Saw-Mill Association. This association will meet in Tifton, Ga., on the 15th, or possibly the 17th of this month. It was decided to send a delegation to this meeting which will urge that the desired changes be put into effect.

The United States census report gives some very interesting facts about the lumber business in South Carolina, which has grown to such large proportions in that State. The report shows in brief these facts:

	Establishments.	Capital.
1900.....	729	\$5,187,727
1890.....	352	1,848,155
1880.....	420	1,056,265
1870.....	227	583,425

The value put down for the product this year is \$5,207,184. The average mills in the State are small, and use \$2755 worth of crude stuff in a year, and the value of the average saw-mill in the State is \$5941.

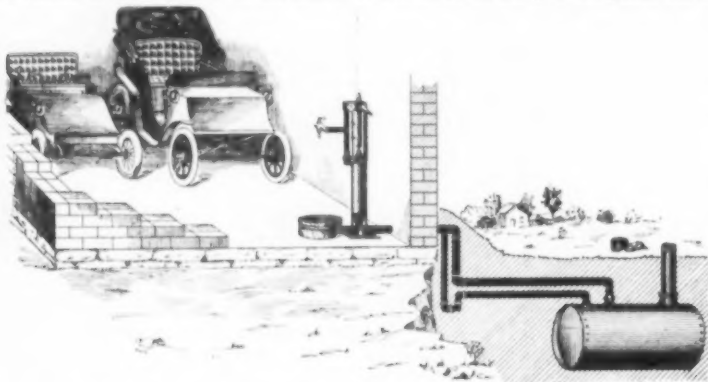
The houses and storage-rooms of the King & Allen Lumber Co. of Thomaston, Ga., were destroyed by fire on the 8th inst. The loss is estimated at from \$2000 to \$2500, with insurance \$1000.

Felix Lederer of Vienna writes to the Manufacturers' Record of his purpose to conduct a general agency for the Continent for the sale of American machinery.

MECHANICAL.

Automobile Gasoline Storage Outfit.

The outfit shown in the accompanying illustration was perfected in response to the wants of many people who desired the tank of a gasoline lighting outfit to be away from buildings in order to meet the restrictions thrown about the handling of gasoline by the insurance companies. The storage tank is filled through a heavy metal filler-tube equipped with an especially-devised lock filler-cap and automatic ball-valve air-vent, which renders it absolutely tight and precludes evaporation. If the tank is



THE BOWSER AUTOMOBILE GASOLINE STORAGE OUTFIT.

buried, the top of the filler-cap stands somewhat above the ground, as shown. With each outfit a measuring rod is furnished for the purpose of ascertaining the number of gallons in the tank when desired.

With this outfit there is but one gallon of gasoline in the building, that being inside the cylinder of the pump. The pump is all of metal, measures an accurate gallon, half-gallon or quart at each stroke, as may be desired, and has a double plunger and double brass valves, dial discharge register and anti-drip nozzle with lever-handle shut-off.

This outfit complies with the most rigid demands of the insurance underwriters, and is endorsed by their governing board for the United States, which is substantial evidence of its merits.

A hose of any desired length can be attached to the pump, and led direct to the reservoir of the automobile.

Tanks are made with any capacity desired, and can be used for oil as well as gasoline.

The makers of this excellent outfit are F. S. Bowser & Co., Inc., Fort Wayne, Ind.

"Requisites for Paralleling Alternators."

A paper on this subject from the engine-builders' point of view, read before the Engine Builders' Association of the United States in Pittsburg May 22 and 23 by Mr. Henry E. Longwell, will be of much interest to electricians who have paralleling to do, and for this reason parts of this paper are here reproduced:

"The parallel operation of alternating current generators direct-connected to reciprocating engines has during the past five years been the subject of more than one learned discourse by many learned electricians. . . .

"It is not the intent of this paper to advance any unfailing recipe for making alternators run in parallel, but rather to call attention to the fact that there are certain things which electricians have not told us which would be helpful if we knew them. . . .

"The parallel operation of alternators imposes a duty on the governing mechanism of the engine which is abnormal and directly opposed to its natural function.

"The natural function of a governor is to regulate the supply of motive fluid in proportion to the load. . . . We must make the governor so that it will not act quickly under any circumstances, and will not respond to moderate changes in load or speed. Hence dash pots, friction brakes, etc., not because the governor is faulty, but because we must needs make it so to prevent its resisting the contradictory demands of the electrical part of the plant. . . .

"We have been told that synchronizing force is what makes paralleling possible, and that the more we have of it the better. . . . This looks so plausible that we have for years accepted it against the evi-

dence of our senses, when, in fact, there is just one small grain of truth in it, i. e., that some synchronizing force is necessary to make paralleling at all possible. . . .

"Synchronizing force cannot pull two generators into phase and hold them there, any more than the force of gravity can pull an ordinary pendulum to the vertical position and hold it there. . . .

"Synchronizing force tending to check the relative displacement between the generator exists only after the displacement has occurred. When the generators are in phase the force is nil, and consequently there is nothing to hold them there.

"I believe I am saying something new when I make the assertion that in every practical case the effect of the synchroniz-

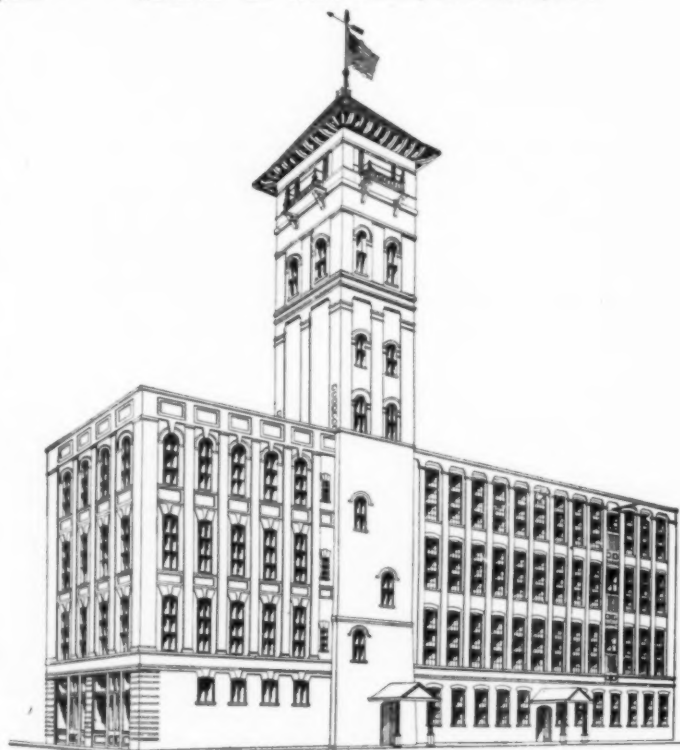
ing force of the alternators is to increase the irregularity of the angular speed of the engine, instead of to diminish it. . . .

"Now, let us consider the effect of the synchronizing force of the generators. For simplicity we will assume that the engine-driven alternator is coupled in parallel with a number of turbine-driven alternators running at absolutely uniform speed. . . . Whenever the steam-

edge can come only when the electrical engineer and mechanical engineer drop all petty differences and co-operate in the most frank and hearty manner."

The D. A. Tompkins Co. Shops.

The D. A. Tompkins Company has completed the construction of comprehensive works for the manufacture of machinery at Charlotte, N. C.



SHOPS OF THE D. A. TOMPKINS CO., CHARLOTTE, N. C.

driven alternator is behind the position corresponding to uniform angular speed, the synchronizing force tends to accelerate the rotating masses, and whenever it is in advance of the position corresponding to uniform angular speed, synchronizing force tends to retard the rotating masses. . . .

"The electrical and dynamic features in the case are so interrelated that real knowl-

The new works comprise machine shop, pattern shop, roll-covering shop, blacksmith shop and foundry.

The shops are operated by electricity taken from a central plant, and reheated with exhaust steam by a new system, which puts no back pressure on the engine, but, on the contrary, tends to relieve the atmospheric pressure from the engine. The plant is lighted by electricity, and is

BOVRBON COUNTY COURT HOUSE
PARIS, KY.
FRANK P. MILBURN, ARCHITECT
COLUMBIA, S. C.



ACCEPTED DESIGN FOR A \$150,000 COURTHOUSE.

thoroughly equipped for fire protection. There is a cistern under the basement floor holding 60,000 gallons of water. Connected with this is a fire pump having a capacity of 500 gallons of water per minute. A tower, supporting a tank of 12,000 gallons capacity overhead, supplies the automatic sprinklers.

The company manufactures cotton-mill machinery, cottonseed-oil machinery, miscellaneous machinery, and conducts a general business in all lines of repairs.

The Woods Self-Oiling Loose Pulley.

The advantages and economy in the use of a reliable self-oiling loose pulley are appreciated by those who suffer from the almost constant annoyance and expense caused by the ordinary pulley or an inferior self-oiler.

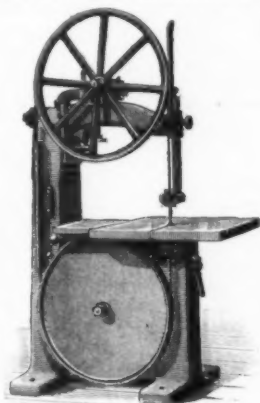
The pulley illustrated herewith revolves on a sleeve, which is fastened to the shaft. Large holes in the sleeve extend from end to end and form capacious oil spaces from which the small radial holes conduct the oil to the bearing surfaces. When the shaft is revolving the oil is carried to the bearings by centrifugal force. When the belt is on the loose pulley, and the shaft is at rest, oil flows by gravity to the bearing through the lower rows of holes.

No felt, wick or fabric of any kind is used as an oil-retainer, and after the pulley is once thoroughly lubricated it is said not to require reoiling oftener than once a

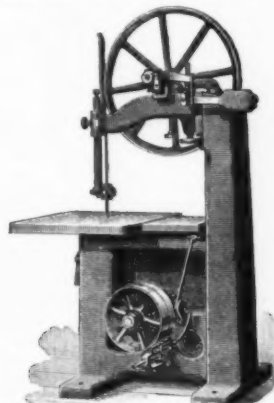
grade woodworking machinery adapted to the requirements of pattern, carpenter and box shops, as well as other purposes where wood is worked.

New Band Scroll Saw.

The improved band scroll saw shown in the accompanying illustrations is built on



FRONT VIEW.



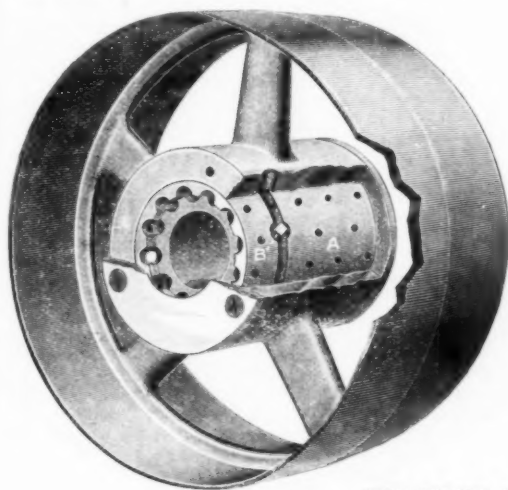
REAR VIEW.

an entirely new principle; the result of years of experience is embodied in its make-up. It is said to be superior to ordinary machines; can be run at a high rate of speed with little vibration, and will break few blades. It was patented February 27, 1900. From this it

J. A. Fay & Egan Company, No. 270-290 West Front street, Cincinnati, Ohio, is sole maker of this machine.

New South Brick Machine.

The new "Xtra" brick machine, shown in the accompanying illustration, was de-



THE WOODS SELF-OILING LOOSE PULLEY.

month under ordinary use, and in some instances it has been known to run as long as ten months without being reoiled.

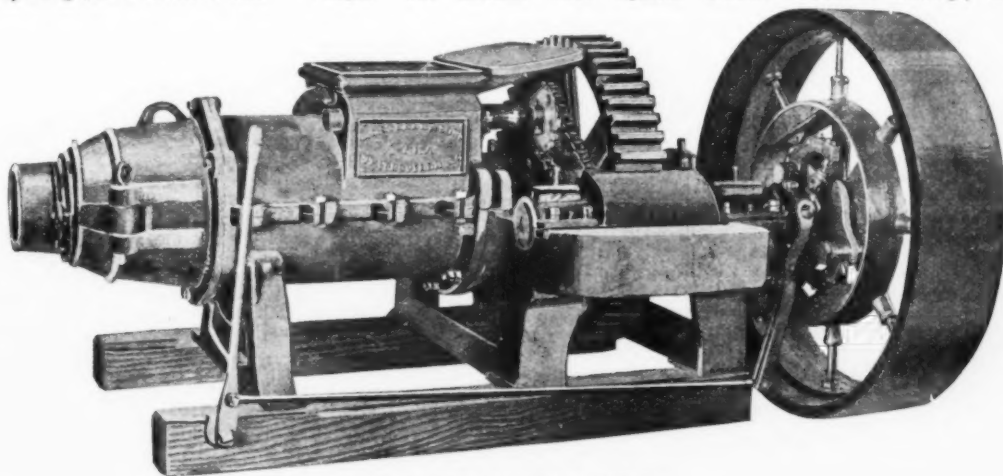
Machinists in general will appreciate the time and annoyance as well as the oil saved by using such a device as this.

will be seen that it is of recent design.

The upright column is very stiff, and enables the machine to run at a high and steady speed without vibration. The iron table can be tilted and clamped to any angle. The machine takes eighteen

signed to meet the requirements of a large class of brickmakers—men who want a machine with large capacity.

It is fitted with a steam die, sure friction clutch pulley, feed roller, hinged front, bronzed end-thrust bearings, four-inch



NEW "XTRA" BRICK MACHINE.

This self-oiling loose pulley is manufactured by the S. A. Woods Machine Co., South Boston, and is adapted to all cases where loose pulleys are required.

Since 1854 the Woods Company has been engaged in the manufacture of high-

inches under the guide and thirty-one inches between blade and column.

The new patent straining device is quite sensitive. The top wheel hangs solely on a knife edge, maintaining at all times a uniform tension on the saw blade.

steel shaft, solid frame containing all bearings, and revolving knife, by means of which roots escape from the machine without opening. From 20,000 to 30,000 brick per day is the rated capacity of this machine, depending on the quality of the

clay. In actual use these machines have frequently far exceeded this.

The barrel has been improved, now being made straight, facilitating removal of knives without disturbing hopper or shaft.

The machine requires from twenty to thirty horse-power, weighs without table 4500 pounds, pulley dimensions 48x12 inches, speed 200 R. P. M., makes tile up to twelve inches, covers floor space 6x8½ feet, and is four feet high.

The sole maker of this machine is J. C. Steele & Sons, Statesville, N. C. W. H. Gibbs & Co., Columbia, are agents for South Carolina.

Enlarging Brookside Mills.

On May 1 the Manufacturers' Record announced the decision of Brookside Mills, Knoxville, Tenn., to increase capital stock from \$500,000 to \$1,000,000 and double its 26,000-spindle, 650-loom plant, thus increasing to a total of 52,000 spindles and 1300 looms. It is now known that the company will make even greater enlargements and improvements. Wm. T. Lang, superintendent of the plant, has just returned from Boston and New York, where he conferred with capitalists interested in the property and completed arrangements for the further extensions. Twelve acres of land have been purchased as site for the additional buildings, and contract will be made immediately to begin construction work. The further improvements will include installation of about 38,000 additional spindles and 800 more looms, which will bring the total to 90,000 spindles and 2100 looms. This further extension will require the expenditure of at least another \$500,000, and it is stated the company will make contracts for it just as soon as the doubling has been effected. This will be about next spring. About 600 operatives are now employed; doubling the plant will increase that number to 1200, and the further enlargements will increase it to 1800. Three hundred operatives' cottages are now being built. The plant when completed will consist of spinning mill, four stories high, 130x260 feet, containing 90,000 spindles; weaving shed, 150x50 feet, containing 2100 looms, with necessary boilers, engines and warehouses.

Westinghouse Notes.—The Westinghouse Electric & Manufacturing Co., Pittsburg, Pa., recently sold two 600-kilowatt A. C. generators and a number of 300-kilowatt rotary converters to the C. G. & P. R. R.; ten direct-connected electric motors, seventy-five horse-power each, and four 100 horse-power to the Lackawanna Iron & Steel Co., Buffalo. (The Lackawanna Company has bought in all 151 induction motors from the Westinghouse Company recently.) The Fayette Manufacturing Co., Chester, Pa., purchased a three-phase equipment from the above company for the manufacture of its superior product, refractory brick.

Appraisal Association.—The attention of Southern manufacturers is called to the work being done by the Manufacturers' Appraisal Association, 515 516 First National Bank Building, Chicago. This company makes a business of appraising manufacturing plants of every description with a view to furnishing disinterested valuation for any purpose whatever. The value of this appraisal, made by a firm of such known reliability, will be seen at once; the placing of fire insurance (proof of loss in case of fire), securing of credit and loans, determination of purchase price, determination of value of various interests in case of dissolution of partnership and settlement of estates are aided by an accurate appraisal, such as this company is entirely capable of making. The fifteen plants of the American Shipbuilding Co. on the Great Lakes, Dering Harvester Co., Adam & Westlake Co., Link-Belt Machinery Co., Chicago; Birdsall Manufacturing Co., South Bend, Ind., and many others have been most acceptably served by this company, which stands ready to serve the manufacturers of the South in the same way, and to send representatives to explain the system and make propositions on plants of reasonable size.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

ALABAMA.

Alabama Port—Oil Wells.—Alabama Port Oil Co. has contracted with A. Schlosser Drilling Co. of New Orleans, La., at about \$12,000 to drill for oil 2500 feet deep. Jos. Espalla, Jr., & Co., 80 St. Francis street, Mobile, Ala., are agents.

Anniston—Machine Works.—Adair Machine Works Co. has been organized with G. B. Adair, president; T. W. Adair, vice-president, and J. W. Ray, secretary, to establish foundry and machine shops; have purchased site and will at once erect two large frame buildings.

Birmingham—Dairy.—Incorporated: Dairy Depot Co., by Martin A. Joyce, Mrs. Nettie J. Trout and Charles E. Trout; capital \$3000.

Huntsville—Oil Wells.—New York-Alabama Oil Co. has been incorporated, with capital stock of \$1,000,000, to develop for oil 25,000 acres of land which it controls. Francis H. Wilson of Brooklyn, N. Y., is president; Gen. Jos. Wheeler of Huntsville, vice-president; Maurice Laupheimer of Baltimore, Md., director, and Dr. Chas. M. Erwin of Columbus, Ga., director. Dr. Erwin can be addressed.

Montgomery—Ice Plant.—Montgomery Ice Co. has let contract for installation of additional ice machinery of fifty tons daily capacity.

Oxmoor—Iron Furnaces.—T. T. Hilman, G. B. McCormack, Erskine Ramsay and Jas. Bowron have incorporated Oxmoor Furnace Co., with capitalization of \$100,000. The company will purchase the two furnaces at Oxmoor now owned by the Tennessee Coal, Iron & Railway Co. These furnaces have been partially dismantled, but the new owner will put them in working condition with a capacity of probably 300 tons daily.

Pratt City—Furniture Company.—Pratt City Furniture Co. will increase capital stock from \$2000 to \$50,000.

Talladega—Cotton Mill.—Highland City Mills intends to expend \$6000 for improvements; it now has 5376 spindles.

Tusculum—Electric-light and Water Plant.—J. W. Worthington of Sheffield, Ala., has secured the franchise for the electric-light plant mentioned last week, also for construction of water-works.

ARKANSAS.

England—Cotton-oil Mill.—Arkansas Cotton Oil Co. of Little Rock has awarded contract for erection of 60-ton cotton-oil mill.

Harrison—Zinc Mines.—C. M. Cordell of Logansport, Ind., has purchased and begun development of zinc lands.

Little Rock—Engraving Plant.—Incorporated: Little Rock Engraving Co., capital \$1500, and Geo. R. Brown, president; Frank Alverson, vice-president; August Probst, secretary.

Little Rock—Cotton-oil Mill.—Arkansas Cotton Oil Co. has awarded contract for \$150,000 worth of buildings and additional machinery to improve its cotton-oil mills in North Little Rock, Fort Smith and England.

Paris—Cotton-oil Mill.—Logan County Cotton Oil Co., lately reported incorporated with \$50,000 capital, has about let contracts for proposed cotton-oil mill. Anthony Hall is architect in charge.

Springdale.—City has definitely decided to construct the water-works lately mentioned as proposed. Plans and specifications have been received. C. J. Chapman is secretary of commission.*

Springdale—Water-works.—Water-works commission will open bids August 1 for construction of a complete system of water-works after plans and specifications now on file. For plans and information address C. J. Chapman, secretary of commission.

Tillar—Oil Mill.—The \$35,000 company reported last week is entitled Tillar Oil Mill, and has elected R. A. Pickens, Walnut Lake, Ark., president; R. W. Harrell, vice-president, and R. H. Wolfe, secretary-treasurer. Mr. Wilcox of Monticello is architect in charge, but no contracts have been let. Address the secretary.*

Yellville—Zinc Mines.—Incorporated: Fishburn Zinc Co., capitalization \$5000, with R. W. Massey, president; M. P. Fishburn, vice-president, and Ida K. Fishburn, treasurer, to develop zinc lands.

FLORIDA.

Fernandina—Ice Plant.—Amelia Beach Co. (capitalized at \$100,000) has purchased the Simmons ice plant, and will enlarge it to thirty tons capacity.

Jacksonville—Orchard Company.—Griffing Florida Orchard Co. has been incorporated to conduct orchard, etc., capital stock being \$10,000. Wm. D. Griffing is president; Wildo E. Cummer, vice-president, and Chas. N. Griffing, secretary.

Liveoak—Wagon Factory.—Sutton Bros. will establish a large plant for the manufacture of wagons, buggies and spokes.

Ocala—Gas and Oil Wells.—Incorporated: Pearson Oil & Gas Co., with a capital stock of \$1,000,000, to prospect for oil, gas and minerals, etc., by Herbert A. Ford, Edward Hiller and John W. Pearson.

Sanford—Telephone System.—Sanford Telephone Co., recently under organization, has elected C. B. Walker, president; W. H. Mitchell, vice-president; W. B. Mitchell, secretary, and placed capital at \$2500. Franchise has been granted, and system will be constructed at once.

GEORGIA.

Atlanta—Car-wheel Works.—It was announced last month that the St. Louis (Mo.) Car Wheel Co. had purchased site and intended to build \$75,000 branch plant at Atlanta. Arrangements are now being closed to erect and equip the works and to organize the Atlanta Car Wheel Co. to own and operate same. Main building will be 118x230 feet. John W. Nute, secretary of the St. Louis Company, will be general manager of the Atlanta Company. P. B. Williams of the St. Louis Company has established offices in the Empire Building, Atlanta, and represents the enterprise locally. P. A. Curran is superintendent of construction, and is now preparing blueprints and specifications from the plans.

Augusta—Planing Mill.—Perkins Manufacturing Co. has secured site for erection of additional planing mill and several new dry-kilns; mill building will be two stories high, 75x200 feet.

Augusta—Electric Plant.—Augusta Railway & Electric Co. will install a new electric-light plant if it succeeds in renewing its municipal contract now pending.

Canton—Orchard Company.—Cherokee Orchard Co. has been incorporated, with capital of \$10,000, for cultivating fruits, etc., by

E. W. Coleman, W. L. Coleman and R. O. Fincher.

Cartersville—Lime Works.—John Reusch of Cartersville, Jos. Fromberg and Mrs. Ellen G. Fromberg of New Orleans, La., have incorporated Ladd Lime Co., capitalized at \$30,000, for manufacturing lime, etc. Company acquires an established plant, which it will enlarge by addition of eight kilns; will also manufacture barrels.*

Dalton—Electric-light Plant.—City has awarded contract to Standard Electric Co. of 40 South Tryon street, Charlotte, N. C., for construction of its electric-light plant lately reported.

Hartwell—Electric-light and Water Works.—City has decided on the construction of water-works and erection of electric-light plant. W. J. Johnson is mayor.

Montezuma—Buggy Factory.—Barnesville Manufacturing Co. of Barnesville, Ga., contemplates removing buggy factory to Montezuma.

Montezuma—Package Factory.—Georgia Fruit Package Co. of Fort Valley, Ga., contemplates establishing a branch package factory at Montezuma.

Newnan—Cotton Ginnery.—M. G. Keith and associates are forming company to build cotton ginnery.*

KENTUCKY.

Burnside—Ice Plant.—Burnside Electric Light & Power Co. contemplates installing 10 to 20-ton ice plant.*

Georgetown—Wire-fence Works.—Jas. J. Fitzgerald of Cleveland, Ohio, has addressed the mayor, asking inducements for the establishment of wire-fence works.

Hopkinsville—Telephone System.—M. C. Forbes, R. E. Cooper and others will organize Home Telephone Co., with capital stock of \$30,000, for construction of telephone system.

Kentucky—Coal and Oil Lands.—Pennsylvania capitalists are about to close the purchase of 50,000 acres of coal and oil land in Southeastern Kentucky. T. E. B. Siler of Lafayette, Tenn., is interested.

Lewisport—Coal Mines.—It is reported that Louisville, Henderson & St. Louis Railway will develop coal mines on several thousand acres of land. Attila Cox of Louisville, Ky., is president.

Louisville—Railroad Shops.—R. Montfort, chief engineer of Louisville & Nashville Railroad, states that while the company has contemplated the erection of the \$1,000,000 shops mentioned last week, it has not perfected its plans.

Louisville.—Incorporated: Lorch & Levi Company, with \$15,000 capital, by B. and A. Haas of Cincinnati, Ohio; S. Z. Lorch and Fannie Levi of Louisville.

Louisville—Bakery.—Incorporated: Grocers' Baking Co., with \$10,000 capital stock, by J. W. Miller, M. J. Doll and John Klefer.

Louisville—Furniture Company.—Louisville Furniture Co. will increase capital stock from \$30,000 to \$50,000.

Louisville—Dental School.—Incorporated: Louisville Dental Laboratory & Post-Graduate School, capital \$1500, by W. S. Smith, C. E. Hoffman and T. M. Crutcher.

Louisville—Abattoir and Packery.—Officials of Central Stockyards Co. have stated plans are being formulated to secure the erection of an extensive abattoir, packery, ice plant and cold-storage house. Wm. E. Perrin & Co. of Chicago are preparing plans for the buildings. Eastern and local capital will be invested. Among those interested are Ira F. Brainard of Louisville and Frank B. Brainard, president New York Produce Exchange, New York.

Menifee County—Coal and Timber Developments.—E. E. Gatewood of Gallipolis, Ohio; J. M. Hambrick and J. Walter Hambrick of Huntington, W. Va., and John McCullough of Point Pleasant, W. Va., have purchased 63,000 acres of coal and timber land in Menifee county at about \$150,000. It is said that the property will be extensively developed.

Mt. Sterling—Mineral and Timber Lands.—Consolidated Oil & Mining Co. of Kentucky and Indiana will be incorporated, with capital stock of \$1,000,000, and Jas. E. Cantrill of Georgetown, Ky., president; F. B. Sandusky of Mt. Sterling, general manager; Peter G. Kamp of Shelbyville, Ind., secretary. The directors include E. M. Dickson of Paris, Ky.; Kelly Moore of North Middletown, Ky.; A. J. Thurston, W. A. Yearling and Chas.

W. Chaney of Shelbyville, Ind. The company acquires 11,000 acres of valuable timber, mineral and oil lands in Kentucky and Indiana, and will institute extensive developments. Previous companies have begun developments on some parts of the property. For information address general manager as herein.

Paducah—Oil-can Factory.—Incorporated: Paducah Can Co., by G. R. Davis, R. C. Davis, J. K. Bondurant and C. E. Jennings, to manufacture a patent oil can.

Paducah—Ore Separator.—Seacoast Mining Co. (of New York) has purchased the Clements mill property for \$11,000, and will construct a large separator for its ore taken from Livingston county mines.

Pikeville—Coal Mines.—Incorporated: Mayo Collins Company, to operate mines. Capital stock is \$50,000. S. P. Richmond, L. B. Crawford, John Wehrle, Malcolm Jackson and J. F. Brown, all of Charleston, W. Va., are incorporators.

LOUISIANA.

Alexandria—Publishing.—John C. Tipton and others will organize Daily Record Publishing Co., which will be capitalized at \$10,000.

Clarks—Lumber Plant.—Louisiana Central Lumber Co. will build an extensive lumber plant, and has not as yet let contracts.*

Crowley—Publishing.—Incorporated: Signal Printing Co., Ltd., with capital stock of \$50,000, and Miron Abbott, president; W. E. Ellis, vice-president; L. S. Scott, secretary, and T. J. Toler, treasurer, for publishing purposes.

Jennings—Oil Transportation, etc.—Marine Oil & Transportation Co. has been incorporated, with subscribed capital of \$100,000, to operate pipe lines, railways, vessels, etc., in the transportation of oil, etc. C. A. Lowry is president; H. C. Wilkins, vice-president; Richard Dahlen, secretary, and J. H. Hoffman, treasurer.

Lake Charles—Brick Works.—Dunn Brick & Supply Co. will rebuild its burned brick works.

Lake Providence—Cotton Compress.—Carroll Compress Co. has been organized, with W. H. Fitzhugh of Vicksburg, Miss., president, and F. X. Bransfield, vice-president, to build cotton compress. Yancey Bell, R. J. Walker and F. R. Bernard of Lake Providence, W. L. Jones of Vicksburg, Miss., and Justine Matthews of Little Rock, Ark., are interested. Capital stock is \$50,000.

New Orleans—Oil Refinery.—Chicago & Louisiana Oil & Refining Co. has been incorporated, with capitalization of \$150,000, for refining oil, developing oil lands, etc.; R. B. Hewitt, president; Henry Baldwin, vice-president; John H. Dunning, treasurer, and J. N. Hennessey, secretary.

New Orleans—Land Company.—St. John Land Co., Ltd., has been incorporated, with capital of \$10,000; Paul Gelpi, president; B. B. Myles, vice-president, and Lucien Monroe, Jr., secretary.

New Orleans—Brick and Tile Works.—Dianna Brick & Tile Co., Ltd., has been incorporated, with capital of \$50,000, for the manufacture of brick and tile. Ernest M. Loeb is president; Thos. J. Feibelman, vice-president; Isidore Kohlmeier, secretary, and A. C. Wuerpel, treasurer.

New Orleans—Oil Company.—Marine Oil Co. has been incorporated, with capital stock of \$6000, to deal in oils, etc. Robert H. Downman is president, and Wm. O. Hudson, manager.

St. Francisville—Electric-light and Water Works.—The city will hold an election to vote on issuance of \$10,000 for construction of water-works and electric-light plant. Address "The Mayor."

MARYLAND.

Baltimore—Elevator Works.—Eastern Elevator Co. (H. B. Iglehart and August Hokanson, proprietors) has been formed for constructing and repairing elevators and doing general millwright work; offices at 406 East Fayette street.

Baltimore—Manufacturing.—Coin Controller Co. has been incorporated for manufacturing purposes, by Harrison J. Barrett, Herbert L. Grant, J. Mercer Garnett, Jr., Robert H. Williams and Allan C. Girdwood. The capital is \$1000.

Baltimore—Garbage Crematory.—Baltimore Sanitary Co. has let contract to John Waters for construction of \$40,000 building for proposed garbage crematory. Plant has been

designed by Chas. Edgerton of Philadelphia, Pa. The digesting machinery has been contracted for. It will cost over \$70,000.

Baltimore—Stationery Factory.—Mention was made recently of proposed branch plant of University Envelope & Paperette Manufacturing Co. of Philadelphia, Pa., which has an authorized capital of \$500,000. It is stated that arrangements have been completed for the erection of four-story building 50x150 feet, and for power-house 30x50 feet for 275-horse-power steam plant, 75-kilowatt generators and other necessary machinery to manufacture 1,000,000 envelopes and 5000 paperettes per day. J. L. Bowles is general manager; office at 302 East Baltimore street.

Baltimore—Photo-engraving Plant.—Incorporated: Acme Photo-Engraving Co., for dealing in photographic printing plates and general photographic supplies, by Harry L. Henninghausen, James D. Gilroy, Charles H. Lighthiser, Theodore A. Payrltner and Frederick Stulz. The capital stock is \$5000.

Elkton—Gas Plant.—The Elkton Gaslight Co. is preparing to erect its proposed new holder, with capacity of 25,000 cubic feet, and to make other improvements.

Ellicott City—Medicine Factory.—Incorporated: Dr. I. J. Martin Medicine Co., by Dr. Roswell A. Martin, Dr. Waltemeyer, William T. Donaldson, John Norton and John M. Donaldson, to manufacture medicines. The capital stock is \$25,000.

Rockville—Water Supply.—City has let contract to Garey Fisher & Bro. of Montrose, Md., for drilling the additional artesian well reported last week.

Westminster—Hat Factory.—Westminster Hat Co. has been organized, with a capital of \$10,000. The directors are W. Frank Thomas, Elias O. Grimes, John H. Cunningham, William B. Thomas, E. Oliver Grimes, Jr., Walter M. Graham and John B. Scott. Derby hats, felt hats and caps will be manufactured.

MISSISSIPPI.

Bay St. Louis—Naval Stores Plant.—Incorporated: Standard Naval Stores Co., for manufacturing rosin, tar, pitch, turpentine, etc., capital stock being \$10,000. Levi Anderson, John C. Gorman and others are incorporators.

Biloxi—Water-works.—Kirkpatrick & Johnson of Jackson, Miss., have been engaged to make plans and specifications for city's proposed water-works.

Fayette—Water-works.—City will expend about \$15,000 for construction of water-works. C. H. Jenks of St. Louis, Mo., is engineer in charge.*

Hazlehurst—Brick Works.—Hazlehurst Brick Co. has awarded contract for its proposed \$10,000 works; daily capacity will be 25,000 bricks.

Lexington—Mercantile.—Incorporated: Lexington Dry Goods Co., capital stock \$40,000, by J. S. Watson, W. E. Gwin, W. P. Roach and others.

Macon—Cotton Mill.—J. P. Stovall, T. J. Wilkins, J. W. Cunningham and others are organizing company to build cotton mill.

McComb City—Cotton Mill.—McComb City Cotton Mills is installing 1000 additional spindles and forty additional looms, etc.; previous equipment 5000 ring spindles.

Meridian—Water-works.—City has purchased fifteen acres of land as site for the construction of a reservoir, deep wells to supply the water. Council will order an election for a \$200,000 bond issue to construct the system. Address "The Mayor."

Pearlington—Mercantile.—Incorporated: Brown-Orr Mercantile Co., with a capital stock of \$30,000, by J. Q. Fountain, C. A. Brown, A. Orr and others.

Pickens—Water-works.—The city expects to sell its \$6000 of water-works bonds on August 1, and arrangements will then be made to construct the system. J. F. Wilburn is town clerk. Kirkpatrick & Johnson of Jackson, Miss., have been engaged to make plans for the system.

Quitman—Ice and Light Plant.—Incorporated: Quitman Ice, Light & Power Co., by S. W. Pettibone, B. H. Donald, C. C. Ferrill, Jr., S. H. Terrall and others; capital stock \$10,000.

Scoba—Cotton Compresses.—Eagle Cotton Oil Co. of Meridian, Miss., is erecting cotton ginnery with square and round bale compresses, at a cost of \$10,000.

Siding—Lumber Plant.—Meehan-Rounds Lumber Co. will build a large lumber plant, but has not yet let contract for erection. Complete equipment for saw-mill department has been purchased, but not the power and machinery for planing mill.*

MISSOURI.

Kansas City—Glass-mirror Factory.—Pitts-

burg Plate Glass Co., Pittsburg, Pa., will establish branch warehouse and later install plant for the manufacture of art glass, beveled mirrors, etc.

Kansas City—Construction.—Incorporated: Urban Construction Co., capital \$50,000, by E. F. Wilcox, John M. Cleary and May B. Wilcox.

Kansas City—Automobile Company.—Incorporated: J. K. Landis Automobile Transfer & Carriage Co., capital \$5000, by John K. Landis, Zenora Landis and Benjamin Landis.

Kansas City—Manufacturing.—Incorporated: O'Donnell Manufacturing Co., capital \$5000, by Terence O'Donnell, Samuel E. Brown, Edward H. Lane and others.

Kansas City—Grocery.—Incorporated: Kansas City Wholesale Grocery Co., capital \$300,000, by H. P. Campbell, J. D. Cunningham, John H. Taylor and others.

Kansas City—Starch Company.—Incorporated: Faultless Starch Co., capital \$100,000, by Thomas H. Beacham, Gordon T. Beacham and John G. Paxton.

Kansas City—Grain Company.—Incorporated: Ewan Grain Co., capital \$50,000, by Thomas L. Ewan, Emery J. Street and John M. Flynn.

Kansas City—Stone Company.—Forrester Bros. Stone Co. has been incorporated, with capital of \$5000, by C. B. Forrester, Jas. M. Forrester and John D. Aud.

Kansas City—Grain Company.—D. P. Lewis, B. H. Montgomery and S. H. Pitts have incorporated Metropolitan Grain Co., with capital of \$5000.

Kansas City—Transfer and Storage.—Adams Transfer & Storage Co. has been incorporated, with capital of \$10,000, by Fred C. Adams, Edwin P. Adams and Louie Adams.

Kansas City—Hardware Company.—A. M. Hucce, Otto Oysell, Henry Hucce and others have incorporated A. M. Hucce Hardware Co., with capital of \$5000.

Kennett—Publishing.—Incorporated: Mail Publishing Co., capital \$2000, by J. B. Blackmore, J. P. Tribble, M. W. Lloyd and others.

King City—Hardware Company.—Geo. P. Adams, George Ryan, Chas. A. Moore and others have incorporated King City Hardware Co., with capital of \$10,000.

St. Louis—Building Company.—Incorporated: Missouri Home Building Co., capital stock \$2500, by J. B. Good, L. P. Crigler, J. D. McCain, J. P. Hallett, E. J. Ostling, L. W. Boswell and T. B. Jones.

St. Louis—Grocery.—Incorporated: Louis Kohner Grocery Co., capital stock \$12,000, by Amelia Kohner, Edmund J. Loewen and Louis Kohner.

St. Louis—Manufacturing.—John Caster, Bernard Greensfelder and Arminda C. Caster have incorporated John Caster Manufacturing Co., with capital stock of \$5000.

St. Louis—Machinists' Supplies.—Incorporated: St. Louis Machinists' Supply Co., capital stock \$12,000, by Hayden Rubelman, Charles A. Reinhardt and Minnie Rubelman.

St. Louis—Amusement Company.—Incorporated: Mound City Amusement Co., capital \$5000, by Fred W. Meyer, George Werner, Henry R. Becker, Morris Langsdorf and others.

St. Louis—Mill Supplies.—Incorporated: The Walter A. Zelnicker Supply Co., paid-in capital \$200,000, by Walter A. Zelnicker, William D. Briggs and Edward Elson, to manufacture and deal in mill and railway supplies, succeeding Walter A. Zelnicker.

St. Louis—Herb Company.—Incorporated: Ozark Herb Co., paid-in capital \$6000, by George Moselle, C. G. Henly and Edward Henrich.

St. Louis—Bridge and Extensive Terminals.—St. Louis Terminal Depot Co., composed of St. Louis and Eastern capitalists, has been organized to build a bridge over the Mississippi river, extensive terminals on the river front, an elevated road to the World's Fair site and a new depot in the heart of the city, at a total expenditure, aside from the cost of the bridge, of \$10,000,000 at the outset, with a possible additional \$5,000,000 later for extensions. The incorporators are D. C. Van Blarcom, vice-president National Bank of Commerce; Edward F. Goltra, president American Steel Foundry Co.; W. B. Doddridge, formerly chairman executive committee of terminal association; Mayor M. M. Stevens of East St. Louis, Ill., and T. C. Doremus of New York city. Mr. Doremus stated that the new enterprise was not connected with other railroad interests. City council has been asked for franchises, and its action will determine the enterprise.

NORTH CAROLINA.

Charlotte—Cotton Mill.—Victor Cotton Mills will hold meeting August 12 to con-

sider increasing capital from \$150,000 to \$250,000.

Concord—Boiler Works.—The city proposes construction of water-works, two miles of sewers and some cement pavements. J. L. Ludlow of Winston, N. C., is the city's engineer. M. B. Stutley is mayor.

Dunn—Lumber Plant.—It is stated that Cape Fear & Northern Railroad will (instead of rebuilding its burned lumber plant at Carr) enlarge extensively its plant at Dunn.

Hickory—Irrigation Pump Works.—The American Water Hoisting Co. will be incorporated, with capital of \$250,000, to acquire the interests of the Latta-Martin Pump Co. and its plant at Hickory for manufacturing irrigation pumps. Branch plants will be established.

Lattimore—Lumber Plant.—W. T. Calton, W. R. Gettys and M. E. Gettys have formed W. T. Calton Lumber Co. to manufacture and deal in lumber, shingles and laths.

Lattimore—Oil Mill.—Verner Oil Co., reported with \$12,600 capital last week, will build a cottonseed oil mill. Most of machinery has been purchased. W. P. Crowder of Shelby, N. C., is architect in charge and contractor.*

Linville—Water-power Development.—It is proposed to develop 20,000 horse-power from the Linville river rapids and distribute electrically within a radius of Morganton. M. B. Wilkinson of Morganton, N. C., is interested.

Randleman—Knitting Mill.—Pearl Hosiery Manufacturing Co. will install additional machinery in its mill.

Spencer—Drug Company.—Incorporated: Spencer Drug Co., capital \$5000. J. D. Dorsett is manager.

St. Lewis—Cotton-oil Mill.—R. E. Pitt, W. P. Mercer, Robert Walston and others have incorporated St. Lewis Oil Co. to build cotton-oil mill. The capital is \$25,000.

Woodlawn—Lumber Company.—Blue Ridge Lumber Co. has been incorporated, with capital stock of \$100,000, by John R. Cochran of Toms River, N. C.; Chas. W. Lindsay of New York and Geo. V. Sheppard of New Jersey.

SOUTH CAROLINA.

Bennettsville—Electric-light Plant.—City will install a complete steam-driven electric-light plant. Collier & Brown, English-American Building, Atlanta, Ga., have charge of the work.

Charleston—Pottery.—E. C. McLain, a pottery operator of East Liverpool, Ohio, is conferring with local capitalists relative to the establishment of a pottery.

Clinton—Furniture Company.—Incorporated: Clinton Furniture Co., capital stock \$2200, by J. A. Bailey, P. S. Bailey and W. V. Farr.

Conway—Chartered.—J. A. McDermott Company, capital stock \$10,000, with J. A. McDermott, president; A. C. Thompson, vice-president; E. V. Dusenbury, secretary.

Greenville—Cotton Mill.—American Spinning Co. will hold meeting July 24 to consider increasing capital from \$350,000 to \$600,000 for the purpose of enlarging its plant; now has 21,000 ring spindles and 352 looms.

Greenville—Cotton Mill.—Woodside Cotton Mills (reported in May as proposed), to have capital of \$200,000, expects to effect permanent organization soon. John T. Woodside is to be president. Details are under consideration.

Greenwood—Bobbin Factory.—Incorporated: Spool & Bobbin Manufacturing Co., capital stock \$15,000; J. W. Sproles, president; G. A. Barksdale, vice-president, and J. A. Barksdale, secretary.

Greer Depot—Cotton Mill.—Lewis W. Parker of Greer Depot; F. J. Inglesby and F. J. Pelzer of Charleston, S. C., have incorporated Apache Mills, with capital stock of \$350,000, to manufacture cotton goods.

Mullins—Cotton Ginnery.—Incorporated: Mullins Ginnery Co., capital \$8000; president, W. H. Daniel; vice-president, B. G. Smith, and secretary, George R. Reeves.

Ruby—Saw-mill, etc.—D. H. McGregor will build saw-mill and cotton ginnery. Machinery has been purchased.

Spartanburg—Cotton Mill.—Arcadia Mills has been incorporated, with \$200,000 capitalization, by Dr. H. A. Ligon, John B. Cleveland, Jesse F. Cleveland, J. H. Sloan, W. S. Manning and others, to build mill of 10,000 to 15,000 spindles. Dr. Ligon was lately mentioned as projecting mill, and this is its incorporation; he will be president. Messrs. C. R. Makepeace & Co. of Providence, R. I., are architects in charge.

TENNESSEE.

Brownsville—Lumber Building.—Albert E. Mahannah, R. M. Chambliss, G. B. Williams,

J. H. Bennett and Mann Wills have incorporated Mahannah Lumber Co., with capital stock of \$10,000.

Elizabethton—Chair Factory.—J. J. Duane, W. C. Duncan, C. F. Bennett, M. E. Hunter and J. M. Lacey are organizing company to manufacture chairs. Water-power will be used.

Knoxville—Ice Plant.—North Side Ice & Coal Co., reported last week with \$20,000 capital, has let contracts for construction of ice plant.

Knoxville—Dress-skirt Factory.—Fred McBee and Frank Hambricht have organized McBee-Hambricht Manufacturing Co., leased four-story building, and will install equipment for manufacturing dress skirts and petticoats of wool and silk. Plant will cost about \$40,000.

Knoxville—Cotton Mill.—Brookside Mills was announced in May as to increase capital by \$500,000 and double its 26,000-spindle and 630-loom plant. The company has now arranged to further increase by addition of 3,000 spindles and 800 looms as soon as the doubling has been effected. Capital was increased from \$450,000 to \$900,000 to effect the doubling, and will be further increased by a greater amount. James Maynard is president.

Memphis—Grain Elevators and Terminal Facilities.—Chicago, Rock Island & Pacific Railway will expend, it is stated, between \$1,000,000 and \$2,000,000 to increase and improve terminal facilities at Memphis, and construct two large grain elevators, etc., in anticipation of increased traffic by way of the Choctaw, Oklahoma & Gulf Railway, which the above company recently acquired. A. J. Hitt, Chicago, Ill., is general manager.

Memphis—Brake-shoe Factory.—American Brake-Shoe & Foundry Co., reported last week, has purchased 100 feet of ground so as to enable it to extend the factory; Chas. Herron, local representative.

Monterey—Coal Mines and Coke Ovens.—Fentress Coal & Coke Co., chartered recently, has organized, with capital of \$200,000, and will develop its 5000 acres of coal and timber land in Fentress county. Mines will be opened with a daily capacity of 1200 tons, equipped with electrical and other modern machinery for production. Coke ovens will be erected in the future. Lumber manufacturing has already been begun. Chas. H. Treat, 950 Nassau street, New York, is president; W. S. Taylor of Philadelphia, Pa., vice-president; A. L. Howe of Philadelphia, secretary, and John T. Wilder of Knoxville, Tenn., general manager. For the present address the general manager. Official headquarters will soon be established in the Arcade Building, Philadelphia, Pa.*

Nashville—Bitumen Plant.—Warren Bros. & Co. will construct a portable bitumen mixing plant, to cost about \$5000.

Nashville—Furniture Company.—Incorporated: Montgomery Furniture & Manufacturing Co., capital stock \$100,000, by W. V. Davidson, M. F. Green, J. N. Hicks, C. B. Benedict, R. J. Montgomery, B. W. Montgomery and T. F. Bonner.

Nashville—Electric Plant.—Jas. F. Caldwell, Chas. H. Brandon, R. E. Folk and Wm. L. Granberry have incorporated Cumberland Manufacturing Co. for manufacturing electricity for light and power; capital stock \$12,000. Mr. Granberry can be addressed.

TEXAS.

Beaumont—Well-pumping System.—Central Power & Equipment Co. has completed its organization, with capital of \$10,000, and will shortly have its well-pumping system in operation. It is proposed to use the eccentric system of operating sucker rods to pump the Spindle Top wells. Col. A. Symes is manager.

Beaumont—Pumping Plant.—Incorporated: Texas Pumping Co., capital stock \$10,000, to transport oil and operate pipe lines; incorporators, W. B. Sharp and Ed. Prather of Dallas, H. R. Hughes of Beaumont, and Felix Hughes of New York.

Beaumont—Oil Wells.—Incorporated: Richey-Davis Oil Co., capital stock \$100,000, to prospect for oil and other minerals, build pipe lines, etc.; directors, C. G. Richey, F. M. Davis, Stronghurst, Ill.; W. H. Gridley, Kirkwood, Ill.; C. A. Miller, Alledo, Ill.; C. A. Bradley, Beaumont.

Beaumont—Oil Wells.—Chartered: Texas Co-operative Oil Co., capital stock \$25,000, by W. T. Campbell, T. J. Wood, R. E. Brooks and C. W. Brooks.

Beaumont—Power Plant.—Chartered: Eclipse Power Co., capital stock \$10,000, by D. O. Lurly, H. R. Decker, W. A. Paddock and R. W. Griswold.

Beaumont—Brick Works.—Neches Brick Co. has been organized and chartered, with

capital stock of \$25,000, to establish plant for manufacturing 100,000 brick daily, besides tiles and other clay products. Orders for machinery and power have been placed, and buildings are being erected. T. M. Pitman is president; E. J. McCullen, general manager, and W. H. Hook, secretary.

Caton-Cotton Ginnery.—G. B. Dean of Detroit, Texas, and others have incorporated Caton Gln Co. and contracted for the construction of cotton ginnery.

Comanche-Water-works.—City has definitely decided on the construction of the water-works lately mentioned as contemplated. Bids are being opened today for building the system. Storage capacity will be 250,000 gallons. J. D. Bonner is mayor.

Ferris-Cotton Gln.—Chartered: Ferris Gln & Cotton Co., capital stock \$8000, by T. G. Cole, F. C. Collier and E. T. Cole.

Fort Worth—Live-stock.—Incorporated: George B. Loving & Co., capital stock \$10,000, by George B. Loving, F. A. Fritsch and John M. Scott.

Fort Worth—Publishing.—Incorporated: Fort Worth Telegram Co., capital stock \$30,000, by C. D. Reimers, J. G. Cary, C. W. Hutchison, B. D. Tarlton and B. P. Avers.

Gilmer—Electric Light Plant.—Chartered: Gilmer Electric Light Co., capital stock \$4000, by J. F. Croley, T. C. Mitchell and C. H. Beemer.

Gilmer—Ice Plant.—Chartered: Gilmer Ice Co., capital stock \$12,000, to erect ice-manufacturing plant; incorporators, J. F. Croley, T. C. Mitchell and C. H. Beemer.

Marlin-Cotton Compress.—Jas. T. Brock and others will build a cotton compress.

Navasota-Cotton Compress.—Incorporated: Navasota Compress Co., capital stock \$35,000, by A. P. Terrell, Tom M. Owen, J. W. Brosig, H. A. Jacobs, R. B. Templeton and A. D. Milroy.

New Boston-Cotton-ell Company.—Bowie County Cotton Oil Co. will increase capital stock from \$50,000 to \$100,000.

Pecan Gap-Telephone Company.—Incorporated: North Texas Telephone Co., capital stock \$5000, by W. A. Cockrell, W. R. James and J. H. Gordon.

Red Oak-Cotton Gln.—Incorporated: Red Oak Gln Co., capital stock \$5000, by T. M. Rockett, G. L. Ligon and R. H. Hooks.

Sabinal—Mercantile.—Incorporated: Sabinal Mercantile Co., capital stock \$20,000, by W. A. Kelley, R. M. Milliken, J. A. Milliken, A. L. McCauley and C. P. Wood.

Texas-Copper Mines.—Texas Copper Co. has been incorporated, with capital stock of \$1,000,000, to develop copper mines. The directors are Hascal A. Haegel, New York; Glenn M. Condon and Robert E. Condon of Gowanda, N. Y.; Asa B. Foster and Edward Jewell of Boston.

Tyler-Box Factory.—Tyler Box & Lumber Manufacturing Co., lately reported with \$25,000 capital, has buildings completed, and will install modern manufacturing equipment. Most of machinery has been purchased, and capacity will be about 1000 carloads per annum. M. M. Davidson is president.

Waco-Printing Plant.—Chartered: City Printing Co., capital stock \$5000, by George Halsell, J. H. Riley and B. C. Richards.

Waxahachie—Hardware.—Incorporated: Will Moore Hardware Co., capital stock \$7000, by William Moore, Henry N. Andrews and E. B. Prince.

VIRGINIA.

Bent Mountain-Cold-storage Plant, etc.—Incorporated: Bent Mountain Apple & Cold Storage Co., capital stock \$100,000, with president, J. W. Woods; vice-president, R. H. Woodrum; secretary and treasurer, E. B. Fishburn, all of Roanoke. The purpose is to raise apples, also operate a large barrel factory, saw and stave mill, etc.*

Berkley-Knitting Mill.—Berkley Knitting Mills will erect addition two stories high, 40x75 feet, and install fifteen additional knitting machines, etc. About \$12,000 will be expended.

Gravel Hill-Saw-mill.—C. C. Camden will rebuild his saw-mill recently burned.

Greatbridge-Brick Works.—H. W. Wilten will establish terra-cotta pipe and brick works with capacity of \$5000 brick daily.

Hampton-Furnace and Water-works, etc. S. H. Sayre and C. R. Sayre have organized Sayre Bros., and will engage in general foundry, steam, hot-water and warm-heating work; also will produce steam and hot-water boilers, furnaces, columns, pedestals, general structural material, etc.

Lynchburg—Pipe Foundry.—Lynchburg Plow Co. has changed title to Lynchburg Plow & Foundry Co., and will issue additional stock for the construction of a pipe foundry.

Morton-Coal Mining and Coke Manufacturing.—E. H. Ould of Mayking, Ky., will organize company to open coal mines and manufacture coke.

Newport News-Foundry.—Newport News Shipbuilding & Dry-Dock Co. has purchased the new plant of the Peninsula Foundry Co.

Norfolk-Sewerage.—Incorporated: Norfolk Sewerage Co., with a capital stock of from \$20,000 to \$50,000; George L. Currier, president; O. D. Barron, vice-president; A. G. Burrow, secretary.

Norfolk-Land Company.—Chartered: Eastern Branch Co., capitalized at \$10,000; president, J. W. McCarrick; vice-president, Barton Myers; secretary and treasurer, Aaron Milhodo.

Norfolk-Realty.—Incorporated: Williamson Realty Co., with a capital of \$100,000 to \$200,000.

Orange-Flour Mill.—R. C. Booten and O. H. Lyne contemplate building flour mill and grain elevator to cost \$30,000.

Portsmouth-Manufacturing, etc.—Incorporated: Portsmouth Investment & Realty Co., to carry on real estate business, general manufacturing business, etc.; A. J. Phillips, president; H. L. Maynard, vice-president and treasurer; T. J. Wool, secretary; authorized capital \$50,000.

Pulaski-Building-material Factory.—Victor Lumber Co. has erected building in which it is installing machinery for the manufacture of doors, blinds, sash, etc.

Richmond-Wheel Factory.—Crone-McMahon Wheel Co. has erected additional building 100x250 feet, and will install sufficient machinery to double its capacity.

Salem-Engraving Machine.—Martin Engraving Machine Co. has been incorporated, with capital of \$10,000, and M. G. McClung, president, and Jas. B. Peringer, secretary.

Shenandoah-Water-works.—City will vote August 5 on issuance of \$20,000 bonds for construction of water-works, gravity system. Address "The Mayor."

Tazewell-Coal and Coke Production.—Big Sandy Coal & Coke Co. has been incorporated to mine coal and manufacture coke, capital stock being \$25,000, with privilege of increase to \$100,000. Walter S. Haskins is president, and Barnes Gillespie, secretary.

Wytheville-Telephone Company.—Incorporated: Wythe Mutual Telephone Co.

WEST VIRGINIA.

Ace—Coal Mines.—E. H. Shonk of Ace, F. L. Garrison of Cincinnati, Ohio; A. B. Shonk, Elizabeth D. Stevens and Ida E. Shonk of Plymouth, Ohio, have incorporated Shonk-Garrison Coal Co., with capital stock of \$75,000, for opening coal mines.

Athens-Lumber Mill.—Brew-Mead Company has been incorporated to manufacture lumber by J. J. Mead of Pittsburg, Pa.; Geo. T. Brew of Oakland, Md.; J. L. Sydenstricker of Athens, W. Va.; John W. Davis and J. M. Gary of Clarksburg, W. Va.; capital stock \$20,000.

Barnum-Coal Mines.—Munroe Coal Mining Co. (represented by E. H. Sincell of Oakland, Md.) has purchased the entire plant of Watson-Loy Coal Co. at about \$125,000. Property includes 1800 acres of coal land in West Virginia and Maryland, and the mines now producing 300 tons per day will be increased to 1000 tons per day.

Charleston-Brewery.—Capital City Brewing Co. has been incorporated, with capital stock of \$200,000, to build 60,000-barrel brewery, bottling works, ice plant of forty tons capacity, refrigerating plant with twenty-five tons capacity, etc. Incorporators are O. P. Curran, H. M. Anderson and P. G. Walker of Charleston, B. O. Lappe and J. S. Speere of Pittsburg, Pa.

Clarksburg-Coal and Coke Production.—Incorporated: Chieftain Coal & Coke Co., capital stock \$600,000, by George D. Howard, trustee; W. J. Sturgis, C. W. Rush, M. Allen and F. P. Rush, all of Uniontown, Pa.; will mine coal and manufacture coke.

Clarksburg-Coal Mines.—Incorporated: Lukens Coal Co., capital stock \$100,000, by A. F. Huston, C. L. Huston, Joseph Humpton, Howard Taggart and H. B. Spackman, all of Contsville, Pa., and Benjamin Miller of Philadelphia, Pa., to mine coal.

Kindricks-Coal, Lime and Cement Production.—West Virginia Lime and Cement Works, recently incorporated with \$25,000 capital, has organized with Henry E. Weaver of Chicago as president; C. A. Bickett, also of Chicago, treasurer; Ira E. Robinson of Grafton, W. Va., attorney; J. Ferguson of Chicago, director, and R. P. Pearson of Reelington, W. Va., general manager. The company is completing plant for manufacturing lime and cement, and will develop coal mines. General manager also has office at 802 Marquette Building, Chicago.

Leewood-Coal Mines.—Incorporated: Cherokee Coal Co., capital stock \$25,000, by G. T. O. A. and J. A. Thayer, F. S. Thomas and D. J. W. Clarkson of Charleston, W. Va., and J. C. Gilmour of Leewood.

Parkersburg-Nitro-glycerine Works.—Incorporated: Consolidated Glycerine Co., to manufacture nitro-glycerine and other high explosives; capital stock \$10,000; incorporators, C. C. Middleswart, F. E. Davidson, Lewis Schaffer, J. B. Milliken and J. P. Haire, all of Marietta, Ohio.

Pratt-Coal Mines.—Wm. Masters, J. J. Duffy, John G. Dwyer and J. W. Dwyer of Lewisburg, W. Va.; D. W. Dwyer of Alta, W. Va., have incorporated Greenbrier Coal Co., with capital stock of \$50,000, for opening coal mines.

Sistersville-Chemical Works.—Incorporated: Ben Travata Chemical Co., to manufacture medicine; capital stock \$50,000. A. S. Adams, A. D. McVey, R. L. Lamberton, J. C. McMahan and J. F. Paesler are the incorporators.

Western Springs-Express Company.—Western Springs Express Co. has been incorporated, with capital stock of \$25,000, by John T. McGraw, A. E. Banghman and G. H. A. Kunst of Grafton, W. Va.; C. P. Darr and Jas. W. Woodell of Webster Springs, W. Va.

Wheeling-Extract Factory.—Exley-Watkins Company has let contract for machinery for its new plant to replace extract factory recently burned. Contract for erection of building has been let to H. W. Fair.

INDIAN TERRITORY.

Chickasha-Lumber Company.—Chartered: Chickasha Lumber Co., capital stock \$30,000; C. L. Byrne, president; W. C. Baker, vice-president; F. M. Gates, secretary, and J. A. Bennis, treasurer.

Collinsville-Gas and Oil Wells.—Incorporated: Collinsville Oil & Gas Co., capital \$50,000, by M. Vandervoort, A. J. Bauer, W. J. Edwards and G. E. Brown.

Miami-Scale Works.—Incorporated: Miami Scale Co. (to be agent for Arkansas for S. Goodbandy Spring Scale Co.) chartered, with capital stock of \$10,000, and J. C. Ginter, president; J. J. W. Wilson, vice-president; G. L. Coleman, secretary.

Venita-Mill.—Chartered: Frisco Mill Co., capital stock \$10,000; M. H. Hawkins, president; J. O. Hall, vice-president; W. L. Chapman, secretary, and Geo. Nidiffer, treasurer.

OKLAHOMA TERRITORY.

Drummond-Mill, etc.—Drummond Mill & Elevator Co., with \$25,000 capital stock, has been incorporated by F. L. Green of Enid, D. M. Carey, A. B. Light and S. T. Allen.

Geary-Water-works.—City will vote July 29 to issue the proposed \$25,000 bonds mentioned last week for the construction of water-works. The city will probably do its own construction work; A. T. Kruse, mayor.

Guthrie-Railroad Shops.—Missouri, Kansas & Texas Railway system (A. A. Allen of St. Louis, manager) states that there is absolutely no truth in the reports that the company has purchased seventy-five acres of land at Guthrie upon which it intends erecting shops, etc.

Ingersoll-Salt Mining.—Chartered: Wealthy Mining Co., with \$200,000 capital stock, to mine and deal principally in salt, by A. A. Cass, T. E. Carmean and F. C. Henritz of Cartersville, Mo.; D. M. Sayre of Carthage, Mo.; W. M. Bickel and T. N. Burnette of Ingersoll.

Kingfisher-Mercantile, etc.—Edwin Tyler, Peter Oden, Madison Brooks and others have incorporated Real Estate Mercantile & Improvement Co., with \$20,000 capital.

Lawton-Mining.—Chartered: Benning-Cross Mining & Improvement Co., with \$98,500 capital stock, by S. N. Cross, Levi F. Benning, O. S. Pruitt and John W. Herington.

Oklahoma City-Cotton Mill.—Dr. John Threadgill and Clarence Bennett will arrange the removal of an Independence (Mo.) cotton mill to Oklahoma City.

BUILDING NOTES.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Alken, S. C.—Office Building.—Alken county has awarded contract at \$7850 for erection of fireproof clerks' office building to B. F. Smith Fireproof Construction Co., 1110 F street N. W., Washington, D. C. Plans by B. F. Smith of company.

Alexander City, Ala.—Hotel.—Hooper &

Nolen will build three-story brick hotel of forty-five rooms, etc. Neither architect or contractor has been engaged.

Alexander City, Ala.—Business Building.—J. E. Walker will erect business building. H. N. Austin of Atlanta, Ga., is architect in charge. Contract has not been let.

Anderson, S. C.—School.—City will erect \$10,000 school building. Address "The Mayor."

Athens, Ga.—City Hall.—City council has instructed city engineer to prepare plans for proposed \$30,000 City Hall. Address "The Mayor."

Atlanta, Ga.—Church.—First Methodist Church (Geo. Winship, treasurer) has accepted plans by W. F. Denny for construction of \$60,000 edifice.

Atlanta, Ga.—Business Building.—Harry Silverman contemplates erecting \$25,000 store building. Willis F. Denny is preparing plans.

Baltimore, Md.—Hotel.—Hotel Rennet has let contract to Henry Smith & Sons for improvements, to include addition of twenty-five outside rooms, with baths. About \$25,000 will be expended.

Baltimore, Md.—Warehouse.—Carstairs Bros.' Distilleries has let contract to Jacob Peters for construction of four-story brick warehouse 70x104 feet, with capacity of 10,500 barrels.

Baltimore, Md.—Office Building.—Commercial and Farmers' National Bank has let contract to John Cowan for extensive improvements to office building, after plans by Wyatt & Nollig. All modern improvements, etc., will be installed.

Beaumont, Texas.—Hotel.—Threadneedle Hotel Co. has purchased site for its proposed \$100,000 hotel.

Belgravia, Md.—Hotel.—Company will incorporate to build hotel on site lately purchased from John T. Wood.

Blount, Miss.—Sanitarium.—Incorporated: Blount Sanitarium, with capital stock of \$50,000, by H. M. Felkes, Harry T. Howard, W. K. M. Duke, L. Lopez and others.*

Birmingham, Ala.—Car Barns.—Birmingham Railway, Light & Power Co. has let contract to T. C. Thompson & Son at \$61,677 for stone and brick work in construction of car shop and barn. Each building will be 110x400 feet in size. Contract for construction of steel and iron work was recently let.

Blountstown, Fla.—Courthouse.—Dobson & Julian have contract to build \$12,000 courthouse.

Bluefield, W. Va.—Residence.—Wilson & Seay, Lynchburg, Va., have contract to build superintendent's residence for Norfolk & Western Railway; cost will be \$7485.

Bowling Green, Ky.—Warehouse.—Turner, Day & Woolworth Co. will build warehouse.

Brenham, Texas.—City Hall.—Bids will be opened July 24 for erection of two-story brick and stone City Hall building, after plans on file at the mayor's office; also on file with A. O. Watson, architect, Austin, Texas.

Concord, N. C.—Office Building.—John C. Wadsworth will erect office building.

Fayetteville, W. Va.—Jail.—Fayette county has let contract to Stewart Iron Co. of Cincinnati, Ohio, at \$34,900 for construction of jail 72x40 feet, steel cells, etc.

Hobart, O. T.—Warehouse.—Jones Bros. & Co. will build two-story warehouse about 25x100 feet, or one-story warehouse 50x100 feet, for seed and nursery storage.*

Huntsville, Ala.—School.—City has let contract to A. M. Booth at \$21,650 for construction of school building.

Jackson, Miss.—Exchange Building.—Kirkpatrick & Johnson will open bids July 28 for construction of Cumberland Telephone Co.'s exchange building, a three-story brick, after plans and specifications on file.

Jacksonville, Fla.—Church.—Trinity M. E. Church has engaged W. H. J. Hawkins to prepare plans and specifications for proposed \$30,000 edifice.

Jefferson, Ga.—Residence.—J. N. Holder will build residence to cost \$2500, after plans by O. H. Sheffield & Co., 518 Austell Building, Atlanta, Ga.

Kaplan, La.—Warehouse.—Rushmore Planting & Milling Co. will erect large rice warehouse.

Lewisville, Texas.—School.—City will erect school building. Address "The Mayor."

Little Rock, Ark.—Association Building.—Wm. Brice of Fort Worth, Texas, has contract at about \$20,000 for erection of Y. M. C. A. building.

Little Rock, Ark.—Club Building.—Concordia Club has let contract to C. W. Clark for construction of \$30,000 building 80x95 feet in size.

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Clark, Jr. three-story plans by J the contra let contract C. Lewis.

Louisville, Ky.—Storehouse.—T. Martin will erect storehouse after plans by V. P. Collins.

Louisville, Ky.—Residence.—J. B. Hutchings has made plans for residence for Mrs. K. Schlicht.

Louisville, Ky.—Residence.—V. P. Collins has made plans for residence for W. C. Priest.

Magnolia, Ark.—Hotel.—Burdal Company of Texarkana, Ark., is architect in charge of constructing the proposed 32-room hotel reported last week for R. L. Emerson & Co. The firm wants to furnish the brick and let contract to a builder; otherwise they will erect it, and R. L. Emerson will superintend.

Marshall, Texas.—Hall.—Bids will be received until July 19 for erection and completion of three-story brick building with basement, 120.9x26.3½, with L 21.6x50, for Elks Building Co. Plans can be seen at office of C. G. Lancaster, architect.

Norfolk, Va.—Club Building.—Virginia Club will erect a \$50,000 building. York & Sawyer, Frank E. Mead, J. K. Murchison of New York and Messrs. J. K. Peebles and Breese & Ferguson of Norfolk will submit plans.

Old Point Comfort, Va.—Academy.—Thos. P. Kennedy of Baltimore, Md., has plans for a \$15,000 addition to the Catholic Academy, to be 50x100 feet, five stories high.

Orange, Texas.—Store Building.—J. W. Link has let contract to N. A. Dawson at about \$15,000 for construction of store building 80x140 feet, plate-glass front, etc., after plans by Burt McDonald of Louisville, Ky.

Paducah, Ky.—Library.—B. T. Davis has contract at \$29,492 for construction of library building.

Perryville, Ky.—Banking House.—Bank of Perryville will erect brick banking house of modern design and equipment.

Pine Bluff, Ark.—Storehouses.—Mrs. W. C. Dunaway of Little Rock has let contract for erection of three brick storehouses.

Princess Anne, Md.—Jail.—Somerset county has awarded contract for erection of county jail at \$7200 to B. F. Smith Fireproof Construction Co., 1110 F street N. W., Washington, D. C. Plans by B. F. Smith of company.

Richmond, Va.—Arena.—Horse Show Association, J. T. Anderson, president, will probably construct a \$20,000 arena.

Richmond, Va.—Apartment-house.—W. A. Cheaterman's contract for erection of Chestersfield Apartment-house, mentioned last week, aggregates about \$225,000. Structure will be seven stories high, fireproof, electric lights, heating plants, and all other modern improvements. Plans by Muhlenburg Bros. of Rending, Pa., associated with Nolen & Baskerville of Richmond.

Roanoke, Va.—Home Building.—Wilson & Seay of Lynchburg, Va., have contract to erect Elks' Home at \$16,789, exclusive of heating and plumbing.

Southport, N. C.—Fireproof Rooms.—Brunswick county has awarded contract to B. F. Smith Fireproof Construction Co., 1110 F street N. W., Washington, D. C., at \$2500 for construction of fireproof record-room.

Spring Hill, Tenn.—School.—Branham & Hughes' proposed school building, lately noted, will be built after plans prepared by Thompson, Gelbel & Asmus, Cole Building, Nashville, Tenn. Structure will include gymnasium and bathhouse, steam-heating plant, and possibly electric-light plant; will expend about \$7000.

St. Louis, Mo.—Hotel.—John P. Herrmann, Jr., will erect hotel 73x80 feet, four stories high, to cost \$50,000.

Temple, Texas.—Business House.—A. L. Flint has let contract to Ben D. Lee for erection of business house 40x110 feet, two stories high.

Temple, Texas.—Business House.—Cheeves Bros. will erect two-story brick business house 30x100 feet.

Tifton, Ga.—School.—City will build school, to cost \$10,000. Address "The Mayor."

Valdosta, Ga.—Hotel.—J. F. Fender will build hotel to cost \$25,000.

Valdosta, Ga.—Residence.—W. B. Conoley of Brooksville, Fla., has let contract for erection of \$9000 residence.

Washington, D. C.—Dwellings.—Home Savings Bank will erect office building seven stories high after plans by Appleton P. Clark, Jr. C. A. Snow will erect four-story apartment-house after plans by Appleton P. Clark, Jr. Robert Berberich Sons will erect three-story flat building, to cost \$25,000, after plans by Julius Wenig; Chas. J. Cassidy is the contractor. Julius Wenig, architect, has let contract for erection of residence for R. C. Lewis.

Welch, W. Va.—Jail.—McDowell county has awarded contract at \$10,600 to B. F. Smith Fireproof Construction Co., 1110 F street N. W., Washington, D. C., for construction of jail on plans by B. F. Smith of company.

Woodville, Miss.—Courthouse.—Wilkinson county has awarded contract at \$41,085 for construction of courthouse. Address "County Clerk."

RAILROAD CONSTRUCTION.

Railways.

Alexandria, Va.—The board of aldermen has authorized the Washington, Alexandria & Mt. Vernon Railway to build a loop.

Annapolis, Md.—Surveys are being made for the entrance to Annapolis of the Washington, Baltimore & Annapolis Electric Railway. James Christy, Jr., is general manager; office at Washington, D. C.

Austin, Texas.—The Hedges-Gosney Railroad Construction Co. of Springfield, Mo., has been granted permission to conduct business in Texas.

Austin, Texas.—The charter of the El Paso & Southwestern Railroad Co. has been filed to build a railway from the boundary line of Texas and New Mexico eastward through the city of El Paso. The incorporators are James Douglas, Wm. E. Dodge and others of New York, and W. G. Choate and others of El Paso.

Austin, Texas.—The Acme, Red River & Northern Railway Co. has been chartered, with \$25,000 capital, to build a railroad from Acme, on the Fort Worth & Denver City Railroad, north to the Red river, about eight miles. The incorporators are E. H. East, T. La Hache and A. L. East of Sherman, John Summerfield of Dallas, Frank D. Sterritt of Abilene, Tom Mankins of Holliday and M. Marx of Galveston.

Ayden, N. C.—The Ayden Lumber Co. proposes to build a railroad six or eight miles long, of standard gauge, with iron rails, from Ayden to timber lands owned by it.

Bay City, Texas.—Tracklaying has begun on the six-mile extension of the Southern Pacific Railway from Van Vleck to Bay City. W. G. Van Vleck is general manager, Houston, Texas.

Birmingham, Ala.—The court has decided that the Seaboard Air Line Railway has the right to lay its proposed tracks into Birmingham. J. M. Barr is general manager; office at Portsmouth, Va.

Bloomfield, Mo.—A line is being surveyed for the St. Louis & Gulf Railway from Zeta to Vanduser, twelve miles. J. E. Brooks is chief engineer, Cape Girardeau, Mo.

Center, Texas.—L. J. Smith, contractor, has 300,000 cubic yards of grading to let on the Santa Fe extension from San Augustine, Texas, to Center.

Charleston, W. Va.—The Cheat River Railway Co. has been incorporated to build a line from Parsons to Rowlesburg, and thence along Cheat river to the Pennsylvania State line near Cheataven, Pa. Wesley Mollohan, Geo. W. McClintock, James H. Couch, W. C. Matthews and R. S. Spillman, all of Charleston, are interested.

Chicago, Ill.—Mr. H. A. Parker, vice-president of the Chicago, Rock Island & Pacific Railway, writes to the Manufacturers' Record denying the report that the company has made a survey between Garber and Perry, Okla.

Columbia, S. C.—The bond issue for the recent consolidation of the Southern Railway Co.'s lines in South Carolina includes, it is reported, a reservation of \$4,000,000 for constructing or acquiring a northwestern extension of the lines of the Carolina Company through South Carolina, North Carolina, Virginia, Tennessee and Kentucky. Mr. Samuel Spencer, president of the Southern Railway, writes the Manufacturers' Record confirming the report and saying that the reservation "has been made simply to provide for further contingencies if the necessity for such an extension should arise."

Concord, N. C.—Application has been made for chartering the North Carolina Central Railroad to build a line from Concord to Fayetteville. R. A. Brown of Concord, Edward W. Shedd of Providence, R. I.; F. W. Siebert of Waterbury, Conn.; W. L. Holt of Fayetteville, N. C., and others are interested.

Dallas, Texas.—Contracts have been signed between a citizens' committee and the Chicago, Rock Island & Pacific Railway, guaranteeing the company a bonus for a right of way into Dallas. H. A. Parker is vice-president; office at Chicago.

Denison, Texas.—Engineers for the Missouri, Kansas & Texas Railway have, it is reported, begun the survey of a line from

Coalgate, I. T., to Oklahoma City, Okla. A. A. Allen is vice-president and general manager, St. Louis, Mo.

Donaldsonville, La.—M. D. Bringier, general manager of the proposed railroad from Donaldsonville to Poincouverville and Napoleon, writes to the Manufacturers' Record that the contracts for grading and track-laying will be ready to close within thirty days. The main line will be 12.3 miles long, and there will be nine miles of spur tracks to various industries.

Flemingsburg, Ky.—The Flemingsburg Board of Trade has appointed a committee to confer with the owners of the Covington, Flemingsburg & Ashland Railroad regarding making the line standard gauge. W. W. Franklin is president; office at Flemingsburg, Ky.

Glasgow, Mo.—Mr. W. H. Chase writes from Glasgow to the Manufacturers' Record concerning the proposed railway in which he and others are interested, saying that it will be an electric line about 150 miles long from Bucklin, Linn county, via Keytesville to Glasgow, Fayette, Harrisburg, Columbia, Fulton, Danville, Montgomery City and Troy to some point on the Mississippi river, traversing a rich farming country which is not now supplied with any east and west line. A corps of engineers is making a survey. The road will be financed by Eastern capital.

Greensboro, N. C.—Concerning the Graham, Burlington & River Falls Street Railway Co., Mr. E. W. Myers, civil engineer, writes to the Manufacturers' Record that the main line will be six miles long from Burlington via Graham to Haw River. A 15-mile branch from Graham will reach River Falls via Swepsonville and Saxapahaw. Contracts are expected to be let soon.

Guthrie, Okla.—It is reported that the Kinsler Construction Co., which has the contract for building the extensions of the Missouri, Kansas & Texas Railway, has sublet the contract to ten firms, and work will begin immediately.

Guthrie, Okla.—The Denver, Enid & Gulf Railway Co., which proposes to build from Denver to New Orleans, has contractors at work between Enid and Guthrie, and surveyors are pushing the line in Western Oklahoma. The Union Trust Co. of St. Louis is interested.

Hagerstown, Md.—The Cumberland Valley Railroad is laying heavier rails, and it is reported will make other improvements to handle heavy traffic. T. B. Kennedy is president, Chambersburg, Pa.

Hagerstown, Md.—Capitalists in Hagerstown are making an effort to build an electric railway between Hagerstown and Waynesboro.

Hancock, Md.—Engineers are surveying for a railway line from Brush Creek valley, in Fulton county, Pennsylvania, to Hancock, Md. They are reported to be in the interest of the East Broad Top Co.

Jackson, Tenn.—It is reported that the Mobile, Jackson & Kansas City Railroad will build through Jackson, Tenn., and Evansville, Ind., to Chicago. Frank B. Merrill is president and general manager; office at Mobile, Ala.

Jellico, Tenn.—The Blue Gem Coal Co., of which A. L. Gratz is president, will, it is reported, build a branch from the Southern Railway to its mine.

Kansas City, Mo.—The Kansas City & Olathe Electric Railroad has, it is reported, awarded a 12-mile contract to John Fogelberg & Co. of St. Paul, Minn.

Knoxville, Tenn.—The Louisville & Nashville Railroad will, it is reported, extend its Briceville line to coal lands owned by E. G. Sanford. George E. Evans is general manager, Louisville, Ky.

Knoxville, Tenn.—It is reported that W. T. Goffe will build an electric railway from Bean Station or Tate Springs to Gate City, Va.

Knoxville, Tenn.—The city council has granted a franchise to the Knoxville, Lafollette & Jellico Railroad for rights of way through Knoxville. J. B. Newton is president and general manager; office at Knoxville.

Knoxville, Tenn.—It is reported that the Southern Railway will secure the Ohio & Charleston road, and will extend it from Hunt Dale, N. C., to Marion, N. C. Samuel Hunt is president and general manager of the Ohio River & Charleston road; office at Cincinnati. C. H. Ackert is general manager of the Southern Railway; office at Washington, D. C.

Lafayette, La.—J. R. Holman, C. Hall and other engineers are surveying a line for a new railroad, and it is reported that they represent either the Southern Pacific or the International & Great Northern.

Laurel, Miss.—Rhodes Bros. and J. E. Land of Laurel and C. D. Thompson of Carthage hold subcontracts on the Mobile, Jackson & Kansas City Railroad, of which C. D. Smith & Co. are the principal contractors.

Lexington, Ky.—It is reported that work will begin on the lines of the Bluegrass Traction Co. by September 1. Harold C. Beatty is secretary.

Louisville, Ky.—The Cincinnati, Richmond & Muncie Railway proposes, it is reported, to build an extension south from Cincinnati through undeveloped lumber regions of the South to New Orleans. W. I. Allen is general manager; office at Richmond, Ind.

Macdonald, W. Va.—J. C. Carpenter & Co. have, it is reported, a contract to build twelve miles of railroad for the McKell Coal Co. on Loup creek, West Virginia.

Manatee, Fla.—A survey for an electric railway is being made from Manatee to Fogartyville.

Meherrin, Va.—Work has begun on the tramway of the Lunenburg Lumber Co. Miller & Miller of Richmond, Va., are interested.

Memphis, Tenn.—It is reported that prominent lumber men of Memphis will build a railroad from Amory, Miss., on the 'Frisco's Birmingham division, to Burnsville, Miss., on the Southern Railway, fifty miles. The contract is said to be let.

Memphis, Tenn.—It is reported that the Louisville & Nashville and the St. Louis & San Francisco railroads will build an independent belt line in Memphis. George E. Evans is general manager of the L. & N., with office at Louisville, Ky., and B. L. Winchell is general manager of the 'Frisco; office at St. Louis, Mo.

Memphis, Tenn.—It is reported that the Chicago, Rock Island & Pacific Railway will soon apply for enlarged terminal facilities for the Choctaw Railroad. H. A. Parker is vice-president in charge of operating; office at Chicago. Mr. W. E. Dauchy, chief engineer, writes to the Manufacturers' Record that the company has no plans at present for increasing its terminal facilities at Memphis.

Mexico, Mex.—Mr. E. H. Brown, second vice-president and general manager of the Mexican National Railroad Co., writes to the Manufacturers' Record that the company contemplates building an extension from San Miguel de Camargo to the city of Monterrey, a distance of about 240 kilometers. The survey will probably begin about the end of this year.

Nashville, Tenn.—The Tennessee Central Railway has, it is reported, been granted by the court its petition to take up part of the Hyde's Ferry turnpike.

Nashville, Tenn.—The Nashville, Chattanooga & St. Louis Railroad has authorized surveys from Lebanon to Smithville, twenty-five miles, and from Murfreesboro to Woodbury, eighteen miles. J. W. Thomas, Jr., is general manager; office at Nashville, Tenn.

New Orleans, La.—The Louisiana Western Railroad received proposals until noon July 15 for grading a branch twenty-five miles long southeast from Lake Charles, La. T. Fay is general superintendent; office at New Orleans.

New Orleans, La.—It is reported that the Mississippi Midland Railroad, which proposes to build to New Orleans, is endeavoring to obtain river-front facilities in St. Bernard.

Newport, Tenn.—J. J. Holloway, president of the Tennessee & North Carolina Railroad Co., writes from Wheeling, W. Va., to the Manufacturers' Record that the company has no connection with any other road. It has made a preliminary survey to Waynesville, N. C., but for the present has no intention of building the extension.

Norfolk, Va.—It is reported that the Norfolk & Southern Railway is considering a proposition to convert its Virginia Beach branch into an electric line. M. K. King is general manager, Norfolk, Va.

Palestine, Texas.—A movement has begun to secure an extension of the Texas & New Orleans Railroad to Palestine. W. G. Van Vleck is vice-president and manager; office at Houston, Texas.

Paul's Valley, I. T.—It is reported that the Atchison, Topeka & Santa Fe Railway will extend its Erin Springs branch to Lawton, Okla., 140 miles. H. U. Mudge is general manager; office at Topeka, Kan.

Pine Knot, Ky.—Phillips & Co. have, it is reported, a contract to build a railroad extension from Pine Knot to Johnson Island, ten miles. Pine Knot is on the Cincinnati, New Orleans & Texas Pacific Railway; W. J. Murphy, general manager, Cincinnati, O.

Portsmouth, Va.—The Norfolk & Western Railroad Co. is reported to be rapidly double tracking its line from the Pocahontas

coal fields to Portsmouth. L. E. Johnson is general manager; office at Roanoke, Va. Mr. C. S. Churchill, engineer maintenance of way, writes to the Manufacturers' Record that the company is building several miles of long sidings between the coal fields and Portsmouth, and in the vicinity of that city is building five miles of new second track, which, when finished, will make ten miles of second track on that section.

Raleigh, N. C.—The Cape Fear & Northern Railway will, it is reported, immediately award a contract for an extension from Angler south to Fayetteville. J. C. Angier is general manager; office at Apex, N. C.

Raleigh, N. C.—The contract for building the extension of the Raleigh & Cape Fear Railroad from Fuquay Springs to Lillington has, it is reported, been awarded to A. & C. Wright of Richmond. John A. Mills is president and general manager, Raleigh, N. C.

Richmond, Ind.—It is reported that the Cincinnati, Richmond & Muncie Railroad, now building a short line between Cincinnati and Chicago, will also build eastward to Newport News, Va. W. L. Allen is general manager; office at Richmond, Ind. It is also reported that the company will build south from Cincinnati through lumber lands to New Orleans.

Snyder, Texas.—A bonus is being raised to secure an extension either of the Atchison, Topeka & Santa Fe Railway or of the Texas Central Railway.

South McAlester, I. T.—The Lehigh Traction Co. has been incorporated, with \$300,000 capital, to build an electric railway from Atoka to Coalgate via Lehigh and other mining towns. Charles Copeland, formerly superintendent of the McAlester Coal & Mining Co.; Thomas Carroll and David J. Young of Fort Smith are among the incorporators.

St. Augustine, Fla.—Concerning the dispatch from Miami, Fla., stating that the Florida East Coast Railway will be extended forty miles southward, Mr. J. R. Parrott, vice-president of the company, writes to the Manufacturers' Record saying the report "is entirely without authority, and altogether premature."

St. Genevieve, Mo.—The first spike has been driven for the Southern Missouri Railroad, of which John R. Walsh of Chicago, Ill., is president.

St. Louis, Mo.—It is reported that the Missouri, Kansas & Texas Railway has purchased the Missouri, Kansas & Northwestern Railway, twenty-nine miles long, from Mineral Junction, Kan., to Joplin, Mo.

St. Louis, Mo.—D. C. Van Blarcom, Edward F. Goltra, W. B. Doddridge, Mayor M. M. Stevens of East St. Louis, and T. C. Doremus of New York city are reported to have formed a company to build an elevated railroad to the World's Fair site, including a bridge across the Mississippi river.

St. Louis, Mo.—Mr. B. L. Winchell, vice-president and general manager of the St. Louis & San Francisco Railroad Co., writes to the Manufacturers' Record saying that the Choctaw Construction Co., which is building the Arkansas & Choctaw Railroad, has passed into the hands of gentlemen, many of whom are interested in the "Prisco. He is advised that an extension will be built from Ashdown to Hope or Stamps, Ark., thirty-three miles. James Campbell of St. Louis has been elected president of the Construction Company, and J. F. Hinckley, supervising engineer. From Ardmore, I. T., it is reported that a spur will be built from Seulin to Sulphur. Johnson Bros. are the contractors.

Terrell, Texas.—President E. H. R. Green of the Texas Midland Railroad is quoted as saying that he knows nothing about the reported plan to build an extension.

Tyler, Texas.—At a citizens' meeting a committee was appointed to secure rights of way for a railroad from Tyler, twenty-five miles, to the Texas & New Orleans road. W. S. Herndon and others are interested.

Vinita, I. T.—The Missouri, Kansas & Oklahoma Railway Co. is preparing to build its branch from Wybark to Bartlesville. A. A. Allen is general manager; office at St. Louis.

Warrensburg, Mo.—A contract for building the St. Louis, Kansas City & Colorado Railroad from Versailles to Warrensburg has, it is reported, been let to Balch Bros. of Minneapolis, Minn.

Wayne, W. Va.—The survey has begun for the Big Sandy, East Lynne & Guyan Railroad, recently incorporated by B. J. Pritchard of Wayne and others.

Street Railways.

Dallas, Texas.—A. K. Bonta, representing the Dallas Consolidated Electric Street Railway Co., is quoted as saying that a deal has been closed for the purchase of the Dallas

Rapid Transit Railway, and that the road will be rebuilt.

Fernandina, Fla.—The Amelia Beach Company has been organized to build a street railway line from Fernandina to Amelia Beach. John G. McGiffin is president; L. G. Hirth, vice-president; E. W. Bailey, secretary, and John W. Simmons, treasurer.

Jacksonville, Fla.—The city council has granted to G. W. Shook and others a street-railway franchise.

Kansas City, Mo.—An agreement has been reached, it is stated, between the Metropolitan Railway and the city authorities for building a cross-town line for the East Side, and to make other extensions.

Little Rock, Ark.—The Little Rock Traction & Electric Co. has been granted authority to build a short extension.

New Orleans, La.—The New Orleans & Pontchartrain Railroad has accepted the ordinance granting it an extension.

Richmond, Va.—It is reported that the Citizens' Rapid Transit Co. will soon begin work on its proposed street railway.

St. Louis, Mo.—M. B. Greensfelder of Olive, Mo., has filed a petition in the St. Louis county court for a franchise to build a railway on the Olive street road from the Linck road to the Midland connection of the Transit Company.

Texarkana, Ark.—George W. Baumhoff is quoted as saying that he has purchased the street railroad in Texarkana, Ark., and Texarkana, Texas, and has deposited a certified check for \$2000 with the city treasurer as guarantee that he will convert the line to an electric street railway as proposed.

Tusculum, Ala.—J. T. Crass of Chattanooga, Tenn., has been granted a franchise for an electric street railway which is to connect Tusculum, Sheffield and Florence.

Valdosta, Ga.—Application has been made to extend the electric railway to the Strickland Cotton Mills, about two miles.

Wheeling, W. Va.—Steps are being taken by the City Railway Co., it is reported, to extend its proposed line from Benwood to McMechen.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Agricultural Implements.—See "Nursery Equipment."

Baths and Gymnasium.—See "Heating Plant."

Beltting.—See "Lumber Plant."

Beltting.—Watson-Viola Company, Lexington, Tenn., wants to let contract for manufacture of an endless belt of cotton and hair, exposing immovable hairs on its face; hairs to run lengthwise of belt; also will want machinery to weave or knit such a belt; belt to be three-quarters inch wide and ten feet in circumference.

Boilers.—See "Railway Equipment."

Boilers and Engines.—See "Lime Works." Building Materials.—Verner Oil Co., Lattimore, N. C., will need building material.

Building Supplies.—J. A. Macdonald, Saracen House, Snow Hill, E. C. London, England, wants catalogues from manufacturers of wood mantels.

Building Supplies.—R. L. Emerson & Co., Magnolia, Ark., will need 35,000 pressed brick, thirty barrels of lime, cement, steel beams, eighty squares of tin roofing, doors, windows, plate glass for front; all for 32-room hotel, etc.

Dam Construction.—Bedford Pulp & Paper Co., 1009 East Main street, Richmond, Va., will have plans ready July 15 for bids on construction of dam, forebay, stone work, headgates, etc.

Electric-light Plant.—See "Heating Plant."

Electric-light Plant.—Verner Oil Co., Lattimore, N. C., will need electric-light plant.

Electric Machinery.—See "Nursery Equipment."

Electric Plant.—See "Lumber Plant."

Elevator.—See "Hoisting Apparatus."

Engine.—See "Nursery Equipment."

Engines.—See "Heating Plant."

Dry-kilns.—See "Railway Equipment."

Elevator.—See "Heating Plant."

Ginnery.—M. G. Keith, Newnan, Ga., wants prices on cotton-gin equipments.

Heating Plant.—F. Paschal, M.D., Physicians and Surgeons' Hospital, San Antonio, Texas, will need heating plant, electric elevator, etc.

Heating Plant.—Branham & Hughes, Spring Hill, Tenn., will need steam-heating plant, gasoline engine, pump, power, tank, gymnasium equipment, bathhouse equipment, and possibly electric-light plant.

Hoisting Apparatus.—W. A. Chesterman, 810 East Main street, Richmond, Va., will need motor and elevator, also hoisting apparatus, possibly hoisting engine.

Hoisting Equipment.—A. H. Smith, 140 W. Seneca street, Oswego, N. Y., wants four-ton hoist for building purposes.

Hospital Equipment.—F. Paschal, M.D., Physicians and Surgeons' Hospital, San Antonio, Texas, will need hospital furniture and appliances; also heating plant, electric elevator, etc.

Ice Plant.—Burnside Electric Light & Power Co., Burnside, Ky., will want estimates on 10 to 20-ton ice plant.

Ice Plant.—Wild Bros., Evergreen, Ala., want estimates on ice and cold-storage equipment.

Ice Plant.—Wm. Edwards, Plymouth, Fla., wants estimates on ice plant.

Laundry Machinery.—Wild Bros., Evergreen, Ala., wants to correspond with manufacturers of steam-laundry equipment.

Lime Works.—A. C. Ladd Lime Co., Cartersville, Ga., will need boilers, engines, fans, common and fire brick, fire doors, grate bars, fire-clay, steel jackets, etc., for eight lime-kilns; also equipment for stove, hoop and heading mill.

Lumber Machinery.—Newton Hardware Co., Newton, N. C., wants a stump puller.

Lumber Machinery.—W. H. Mason, 1000 Washington street, Portsmouth, Va., wants a lathe mill complete.

Lumber Plant.—Louisiana Central Lumber Co., Clarks, La., will need double-band saw mill, engines, boiler, five brick steam dry-kilns, planing mill, etc.

Lumber Plant.—Meehan-Rounds Lumber Co., Sliding, Miss., will need belting, electric plant, roofing material, power and machinery for planing mill.

Mining Machinery.—Nortonville Coal Co., W. S. Elgin, manager, Nortonville, Ky., will need engines, boilers and electric machinery for coal mining.

Mining Machinery.—Fentress Coal & Coke Co., J. T. Wilder, manager, Knoxville, Tenn., will need electric mining machinery, rope haul for cars, boilers, engines, etc.

Nursery Equipment.—Jones Bros. & Co., Hobart, O. T., will need gasoline engine, small dynamo, seed thrashers, elevators, small irrigation plant, greenhouse, etc.

Oil Mill.—Tillar Oil Mill, R. H. Wolfe, secretary, Tillar, Ark., wants complete outfit for cottonseed-oil mill.

Pickling Plant.—Richardson Pickling Co., Wm. D. Richardson, secretary, Fredericksburg, Va., wants processing apparatus and fixtures.

Printing Plant.—Summers Publishing Co., E. C. Engle, president, Hinton, W. Va., will need complete outfit for printing newspaper.

Pulp Machinery.—J. J. Devine, Linden, Tenn., wants information on machinery to manufacture poplar fiber pulp.

Pumping Plant.—Washington aqueduct commission, A. M. Miller, engineer, U. S. A., Washington, D. C., will open bids August 12 for 120,000-gallon centrifugal pumping plant, 1,168,000 yards excavation, 165,000 barrels cement, 150,000 feet glazed vitrified pipe, etc.

Railway Construction and Equipment.—Mather D. Bringer, general manager, Donaldsonville, La., is prepared to let contract in connection with electrical railway. He will entertain proposition on considerable grading work, etc., for 12-mile railway. Will want one compound oil-burning locomotive, total weight 108,000 pounds, six drivers, 54-inch centers, tractive capacity 2475 tons (of 2200 pounds), equipped with Vanderbilt furnaces; forty standard-gauge flat cars, with side sticks; ten standard construction box cars, 1300 tons 65-pound first quality steel rails, 800 tons of 56-pound second-hand rails, accompanying switches, crossings, etc.; 60,000 cypress or heart pine cross-ties, 7800 running feet vitrified pipe thirty-six inches in diameter, etc. Wants quotations delivered

at Donaldsonville, stating guaranteed date of deliveries.

Railway Equipment.—Lunenburg Lumber Co., Richmond, Va., will need narrow-gauge locomotive, logging cars, 100-horse-power boilers, dry-kiln of 15,000 feet daily capacity, etc.

Railway Equipment.—Bailey-Lebby Company, 213 Meeting street, Charleston, S. C., wants ten standard tank cars, 6500 gallon capacity, equipped with automatic couplings, air-brakes and steam pipe; second-hand preferred.

Roofing.—See "Lumber Plant."

Roofing.—W. T. Jay, Dublin, Ga., wants to buy roofing (Philip Corey's).

Street Improvements.—W. S. McComb, Jellico, Tenn., will open bids July 21 for grading and macadamizing streets with curbing, gutter, etc., length about two and one-half miles. Blank proposals mailed on application.

Telephone Equipment.—Wythe Mutual Telephone Co., Wytheville, Va., wants telephone wire and instruments.

Textile Machinery.—Norfolk Bagging Co., 622 Citizens' Bank Building, Norfolk, Va., wants names of manufacturers of machinery for batting cotton burlaps for jute fiber.

Turkish-bath Equipment.—Biloxi Sanatorium, Biloxi, Miss., will need equipment for Turkish baths.

Water-wheel.—Bent Mountain Apple & Cold Storage Co., John W. Woods, president, Roanoke, Va., will need overshot steel water-wheel thirty feet in diameter, forty-eight inches wide, 24-inch piping; also small circular saw-mill and stave machinery.

Water-works.—City of Morgantown, Ky., will soon arrange to contract for water-works; \$9000 available. Address "The Mayor."

Water-works.—City of Fayette, Miss., will ask bids in about sixty days for construction of \$15,000 water-works. System is to include steam plant, 150-gallon per minute double-acting well pump, 35,000-gallon steel tank on a 100-foot tower, two and one-half miles of pipe, valves, hydrants, etc. C. H. Jenks of St. Louis, Mo., is engineer in charge. Well-drilling Machinery.—Newton Hardware Co., Newton, N. C., wants outfit for boring two, three, four or five-inch wells 85 to 125 feet deep.

Woodworking Machinery.—See "Water-wheel."

Woodworking Machinery.—T. E. Brittle, Darden, Va., wants lathe machinery, new or second-hand.

Woodworking Machinery.—D. W. Alderman & Sons Co., Alcolu, S. C., wants four-sided planing machines, second-hand, good condition, for quick shipment (S. A. Woods make preferred).

Woodworking Machinery.—See "Lime Works."

Woodworking Machinery.—Tyler Box & Lumber Manufacturing Co., Tyler, Texas, will need outfit for fruit boxes, baskets and crates.

TRADE NOTES.

Ball Installation.—The owners of the William Borden's Building, Clinton and Adams streets, Chicago, are installing an electric plant, consisting of a Crocker-Wheeler generator direct-connected to a 125-horse-power engine built by the Ball Engine Co., Erie, Pa.

Planer Wanted.—The James P. Wetherill Machine Co., Chester, Pa., wants a new or second-hand planer, fifty or sixty inches between heads, or a 36-inch open-side planer. It will be to the advantage of anyone having such a machine to communicate with the above firm.

Sales by J. S. Cothran.—The Dover Yarn Mills, Pineville, N. C., have placed an order with the Garland Air Moistening Co., Saco, Me., J. S. Cothran, Southern agent, Charlotte, N. C., for the moistening system for a new weave-shed addition which this company has lately built.

F. M. Hicks' Sales.—Ten flats, 60,000 pounds capacity, two freight engines, two passenger coaches and one combination car are being rebuilt by the Hicks Locomotive and Car Works, 225 Dearborn street, Chicago. This company also sold outright two freight engines recently. Sales were made and orders taken by F. M. Hicks for the company.

City Water-Works.—The city of Manning, W. Va., is about to install a system of city water-works, and through B. E. Mitchell, chairman water committee, is calling for bids until July 23 for furnishing or laying 1500 feet of eight-inch and 1900 feet of 10-inch cast-iron pipe, with necessary valves, etc. Certified checks of 5 per cent. must accompany these bids.

Large Cement Output.—The Ridgmont Cement Manufacturing Co., 325 Walnut street, Philadelphia, with a daily capacity of 500 barrels of "Rosendale" or natural hydraulic cement, is now ready to begin business, having started work in its new plant. For sixty years this cement has been in thoroughly satisfactory use. Additions to the prepared wall-plaster plant are now being made.

New Elevator Constructors.—Eastern Elevator Co. (H. B. Iglehart and August Hokanson, proprietors) has been formed and established offices at 406 East Fayette street, Baltimore, Md. The company will construct and repair freight and passenger elevators and do general millwright work, representing in the city the H. J. Reedy Elevator Co. of Cincinnati, Ohio. H. B. Iglehart (formerly a superintendent of construction for Otis Elevator Co. of New York) is manager.

Oil Filter Sales.—The "White Star" oil filter has demonstrated its utility and superior construction. Its merits have created an extensive demand for it. Among the heavy list of shipments recently made by its maker, the Pittsburg Gage & Supply Co., Pittsburg, those for the Nashville Electric Light Co., Nashville, Tenn.; R. R. Nitchell Company, Cincinnati; Carnegie Tube Co., Carnegie, Pa., and the Army and Navy Hospital, Hot Springs, Ark., were the largest.

Ice-Making Machines.—The A. H. Barber Manufacturing Co., 229-231 South Water street, Chicago, is doing an unusually extensive business in ice-making machinery and refrigerating plants. Throughout the West especially the gain in popularity of the Barber products has been very marked. Records of recent contracts show that not less than eleven heavy orders, three from the Pacific coast, the others from Chicago, for plants varying in capacity from three to fifteen tons, have been booked by this very successful concern.

Timber Land for Sale.—Valuable property may be purchased cheaply at Chase City, Va., at this time. It includes 7000 acres of land, containing 40,000,000 feet of No. 1 old-growth pine, poplar, hickory and oak lumber, a hand-saw mill with a capacity of 40,000 feet per day, two small portable saw-mills, twenty-five acres of land, new office, house and barn, seventeen head of horses and mules, four new and heavy trucks, two swing carts, eleven wagons, harness and tools in quantity. Address Bowen & Street, 600 Citizens' Bank Building, Norfolk, Va.

Large Order.—The Eureka Fire Hose Co. of New York was very successful in competing on bids for cotton rubber-lined fire hose for the New York Fire Department. The order is one of the largest and most important ever placed. It consists of 2000 feet 1½-inch "Paragon" brand, 8000 feet 2½-inch, 8000 feet 3-inch and 2000 feet 3½-inch "Eureka" brand fire hose for the boroughs of Manhattan and the Bronx; also 2500 feet 1½-inch "Paragon," 6000 feet 2½-inch and 2000 feet 3½-inch "Eureka" for the boroughs of Brooklyn and Queens—a total of 31,500 feet of hose.

Window Business.—Among the number of firms ordering H. Collier Smith's patent shutterless automatic-closing fireproof metal windows during the past few weeks are the following: Mr. Jacob Behrend, 122 West Allen street, Philadelphia, new factory; H. O. Wilbur & Sons' new factory, corner Broad and New streets, Philadelphia; Blinswanger & Co., Richmond, Va., new warehouse, and A. Schoenbut Company, 2162-66 Adam street, Philadelphia, new factory. The Smith-Warren Company, which controls the patents for these windows, has recently closed a manufacturing agents' contract with Messrs. McFarlane & Douglas, proprietors of the Crown Corncor Works, Ottawa, covering the provinces of Ontario and Quebec.

Important Purchase.—Myers pumps have had such general and extended sales that F. E. Myers & Bro., Ashland, Ohio, its makers, have come to the conclusion that large orders can only be filled with requisite promptness by manufacturing direct from raw materials, depending on no intermediate plant for the handling of raw stuffs. The Myers concern, with this in view, is interesting itself in the Youngstown Sheet Iron & Tube Co., Youngstown, Ohio, the purchase of which will insure the desired promptness in execution of orders for at least one year to come. This establishment is said to be one of the largest in the Mahoning valley, capitalized at \$4,000,000, modern in construction, and turning out very fine work.

Cortright Shingles.—The Cortright Metal Roofing Co., 50 North Twenty-third street, Philadelphia, with Western office, 124 Van Buren street, Chicago, has recently added to its plant a large kettle or tank for galvan-

izing metal slates and "Victoria" shingles. These goods are very popular, because they require no paint to preserve them. This company's method is to take the slates or shingles, which are stamped out of roofing tin or terne plate, and after stamping, galvanize them, which insures a thorough coating and leaves no raw or cracked edges exposed. In order to better understand what excellent goods these are, architects, contractors, roofers and intending builders should send to the Cortright Company for samples, which will be furnished gratis.

Quick Recovery.—A disastrous fire destroyed the foundries and pattern storage houses of the Union Steam Specialty Co., Scranton, Pa., on July 2, causing a loss of about \$30,000. This plant was one of the most modern in the country, with every facility for the casting of pumps, separators and other steam specialties. The company states that quarters were secured for its patternmakers with the Green Ridge Lumber Co. on the following day, and that work was begun at once duplicating patterns. A temporary foundry building 75x125 feet was also erected without delay. This will be replaced about August 15 with a brick structure nearly twice the size of the old building. The machine shops and offices of the company were not damaged; all tracings and records were preserved. Owing to the fact that the company had over 150 "Duplex" pumps and about forty tons of separators in stock, no delay is anticipated in filling orders. It is hoped all patterns will be replaced before the stock is exhausted.

Zelnicker Company Notes.—The railway, mill and factory supply business of Walter A. Zelnicker, 408 North Fourth street, St. Louis, has been absorbed by the Walter A. Zelnicker Supply Co., Mr. Zelnicker's business having grown to such proportions that this procedure was necessary, and still more necessary, for the reason that Mr. Wm. D. Biggers, formerly manager city wholesale department, Simmons Hardware Co., has associated himself with Mr. Zelnicker. This company will continue the business at the same offices, with rail yards and factory at East St. Louis, Ill., St. Clair avenue and Vandavia tracks. In making this change Mr. Biggers will add considerable strength to the business through his experience as buyer and manager of the Simmons Hardware Co. Mr. Ed Elson, vice-president of the company, will continue as manager of the New Orleans branch, with offices at 206 Godechaux Building, New Orleans, La. Mr. Louis Alsberg, formerly cashier, will be treasurer of the new company. Mr. Zelnicker will now devote his attention to rails and equipment; Mr. Biggers to the general supply business. This company, increasing its territory, is adding three new men to its traveling force, making in all twelve traveling salesmen.

A New Factory.—The Standard Roller Bearing Co., Philadelphia, Pa., having found present facilities inadequate to meet its increasing business, has purchased a large and extremely valuable piece of trackage property near the center of the city, ten minutes' ride from the City Hall, on the main line of the Pennsylvania Railroad, on which will be built a very large factory for the manufacture of roller bearings. The new plant is advantageously situated, and is intended to be a model one in every respect. It will be 200 feet long and from 100 to 150 feet wide. The principal buildings will consist of two factories 200 feet long and 60 feet wide, of improved design and construction, in addition to office buildings, etc., equipped with every convenience for the rapid and economical handling of business. The Ball Bearing Co., also of Philadelphia, recently removed from Boston, will occupy a portion of the new plant, which will be specially arranged to meet its needs. The rapid growth of the Standard Roller Bearing Co. is worthy of notice, as it is unusual for a business of this kind to develop so extensively within so short a time. This is largely due to the superior merit of the company's product, which includes ball, roller and all kinds of anti-friction bearings of the highest grade for machine construction.

TRADE LITERATURE.

Monthly Stocklist.—Shipments from mills are frequently delayed. On such occasions an extensive stock of supplies, centrally located, is very convenient. An accurate account of its heavy stock of iron and steel bars is mailed monthly on application by Bourne-Fuller Company, Cleveland.

"The Mechanic."—The July issue of "The Mechanic," a monthly publication devoted to the interests of the machine woodworkers, has just been issued by H. B. Smith Machine

Co., Smithville, N. J. This journal contains twenty pages of instructive and well-edited reading matter, flanked by quite an amount of good advertising.

Railway Equipment.—The Edgar S. Low Company, Empire Building, Pittsburg, has issued an attractive little folder to the trade, entitled "Railway Equipment Contractors' Plants." In this all forms of supplies used by railway contractors are illustrated and briefly described. Steam shovels, hoisting engines, dredges, "Vulcan" locomotives, etc., are among the supplies listed by this company, held continually in stock for immediate shipment.

Denney Pump.—Sixteen pages of what users of the "Denney" improved "Rider & Ericsson" hot-air pumping engine think of these engines will be of interest to anyone contemplating a purchase of this kind and in doubt about selection. The testimonials are as concise, complimentary and convincing as these hot-air pumps are said to be reliable, economic, safe and noiseless. The American Machine Co., Wilmington, Del., has manufactured these machines for years.

New Bulletin Feature.—The Crocker-Wheeler Company, Amper, N. J., makes a radical departure from the usual custom in issuing its latest bulletin. This bulletin, while of the same value as its predecessors, contains less than two pages of printed matter in all. From cover to cover it is full of attractive half-tones, each showing a different use to which Crocker-Wheeler motors have been put. The variety of these is almost wonderful. The book is attractively bound in burlap, tied with a twine string—effective, instructive, and well gotten up.

Stanley Company Literature.—The 32-page S. K. C. Bulletin, No. 127, entitled "Switches," issued by the Stanley Electric Manufacturing Co., Pittsfield, Mass., is ready for distribution. Besides S. K. C. slide switches and carbon break switches, many specialties are described, among which are combined oil switches and circuit-breakers for great capacities at high voltage, and a line of knife switches, the blades of which are made up of units, providing a range in capacity from 50 to 3000 amperes, single or double throw, with or without fuses, and with or without quick break. Requests for copies addressed to Ray D. Lillibridge, 170 Broadway, will receive prompt attention.

Scale Resolvent.—The need of a reliable compound for the cleaning of steam boilers and preventing the formation of scale has been fully realized by steam users, but the difficulty of compounding an article that would be effective without the use of injurious acids was not easily overcome. Pure Vegetable Scale Resolvent, which has just been put on the market, is guaranteed to contain nothing that is injurious to iron; to effectually remove scale and prevent the formation of any character of incrustation while it is used. It has been subjected to many trials and tests, and has never yet failed to do all that is claimed for it. The last page of the pamphlet issued by its maker, the Brewer Boiler Compound Manufacturing Co., 161 Water street, Mobile, Ala., in describing it and its merits, has a complimentary testimonial from Mr. F. T. Engisch, chief engineer of the Mobile Street Railroad Co. This testimonial is strong and convincing.

New England's Coast.—From the time when the Mayflower first cast anchor in a New England port, and the staid old Puritans set foot upon her shores, the popularity of New England's coast as a summer resort was assured. Aside from the natural beauty and picturesque spots on the Atlantic coast, this portion has another attribute—the delightful coolness which pervades this section even during the hottest months. The hotels are among the finest in the country, and the patronage comprises the wealthiest and best class of the American people. The train connections along the coast from Boston are admirable, and the additional and improved train service between Bar Harbor, the coast of Maine and New York city has greatly added to the comfort of the visitors from that section. For comfort, pleasure and beauty, the length of seacoast between the rock cliffs of Marblehead and the towering mountain peaks which stand guard over the historic Isle of Mt. Desert and its summer paradise, Bar Harbor, is without an equal. The descriptive pamphlet, "All Along Shore," which will prove useful in selecting a seaside resort, will be mailed by the passenger department, Boston & Maine Railroad, Boston, for a two-cent stamp. "New England Seashore" is the title of a portfolio made up of thirty half-tones illustrating the coast, and will be mailed upon receipt of six cents in stamps.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office Manufacturers' Record,

Baltimore, Md., July 16.

During the past week the Baltimore stock market has displayed considerable activity, especially in the securities of the Nashville Railway of Nashville, Tenn., and in those of the United Railways & Electric Co. of Baltimore. The movement in the Nashville issues was the result of reports that offers had been made for the property, and also that a decision favorable to the company would be rendered by the court. The result was a rapid advance in the common stock of the company, which had for some time been selling at 3, while the bond certificates, that had already risen eight points, advanced still further. When the decision was rendered it was found to be favorable to the company on all points except regarding the consolidation. The immediate effect of the news was to cause a rapid decline in the securities from the highest point 77½, to 70 for the bond certificates, but from that point there was a rapid reaction, in which most of the loss was regained. The stock also declined and recovered. Encouraging reports concerning the earnings of the company and its prospects caused the securities of the United Railways & Electric Co. of Baltimore to advance fractionally and hold the gain with considerable firmness.

There was some trading in the common and preferred stocks of the Seaboard Air Line Railway Co., and both advanced upon encouraging information concerning its earnings and the outlook for the property. Consolidated Gas strengthened, but there were no new developments regarding the contest for control, which is to be settled on July 21, when the annual election takes place. There was a good demand for all investment securities, and considerable trading in them.

In the dealings United Railways common sold between 15½ and 16½; preferred at 34; preferred scrip at 30; preferred certificates at 68; the income bonds between 69½ and 70½, and the 4 per cents between 97 and 97½. United Light & Power preferred sold at 41, and 4½ per cent. bonds at 86½ and 87. Nashville Railway common sold from 5½ to 7½, from which there was a reaction to 6, when there came a drop to 4½ and a speedy recovery to 5½, after which the stock advanced to 6, remaining about steady. The bond certificates started at 73½, and rose with considerable steadiness to 77½, from which there was a gradual reaction to 76½; then came a tumble to 70, and a recovery of about four points, the advance being well held. Seaboard common was traded in between 26¼ and 26½, and the preferred between 46 and 47, while the 4 per cent. bonds were steady at 85½ and 85¾, and the 5 per cents at 103½ and 103¾. Consolidated Gas moved upward from 68 to 69; the 6 per cent. bonds were steady at 112 and 112½, and the 4½ per cent. certificates at 102½.

There was little doing in the issues of the Mt. Vernon-Woodberry Cotton Duck Co., the common stock selling at 9½ to 10 and the income bonds at 46 to 46½, while the 5 per cents were traded in between 82½ and 83. Speculative interest in these securities was limited, owing to lack of information concerning the earnings of the company and the probable action of the board with reference to pay-

ing interest on the income bonds. G. B. S. Brewing common sold at 16 and 17, the incomes at 42½ to 43, and the 1sts at 53½ and 53½.

The feature of the trust-company group was International, which, upon favorable showing concerning the earnings and prospects of the company, advanced from 129½ to 136, but there was a partial reaction from the high level. United States Fidelity sold between 147 and 149; Union Trust at 63 and 63½; Maryland Trust at 208; Maryland Casualty at 52 and 52½; Mechanics' Bank was traded in at 33, and Bank of Commerce at 29½.

Other securities dealt in were as follows: Atlantic Coast Line common sold at 154½ down to 150, but reacted to 152; Atlantic Coast 4s (S. C.), 102½; Atlantic Coast 4s certificates (Conn.), 97½; Baltimore & Annapolis Short Line 5s, 110½; Carolina Central 4s, 97½; North Carolina 4s, 104; Georgia & Alabama Consol. 5s, 112½ to 113; Georgia Southern & Florida common, 48; do. 1st preferred, 99½; do. 2d preferred, 82½; Georgia Southern & Florida 5s, 114; Western North Carolina 6s, 118; Charleston Consolidated Electric 5s, 95; City & Suburban 5s (D. C.), 104½ and 105; Citizens' Railway, Light & Power of Newport News 5s, 100; Norfolk & Carolina 5s, 120½; Atlanta Street Railway 5s, 105 and 105½; Canton Company, 102½ and 103½; Savannah 5s, 107½; Charleston & West Carolina 5s, 115½; Georgia, Carolina & Northern 5s, 111½ and 112; Anacostia & Potomac 5s, 103 to 104; Charleston Street Railway 5s, 105; Northern Central stock, 118 and 118½; Virginia Midland 3d, 123½; Virginia Midland 5th, 116½; Alabama Coal & Iron preferred, 81; Lexington Street Railway 5s, 103½; Wilmington, Columbia & Augusta 6s, 113½; Virginia Railway & Electric Development 5s, 97; Philadelphia Company common, 48½; Savannah, Florida & Western 6s, 120½; West Virginia Central 6s, 113 and 113½; Norfolk Railway & Light 5s, 96, and Maryland Telephone 5s, 87.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended July 16, 1902.

Railroad Stocks.	Par.	Bid.	Asked
Atlanta & Charlotte.....	100	105	108
Georgia Southern & Florida.....	100	48	50
Georgia Sou. & Fla. 1st Pref.....	100	99	100
Georgia Sou. & Fla. 2d Pref.....	100	83	85
United Railways & Elec. Co.....	50	164½	166½
Seaboard Railway Common.....	100	29½	26½
Seaboard Railway Preferred.....	100	46½	46½
Lexington Railway Co.....	100	47½	50
Atlantic Coast Line of Comm.....	100	285	

Bank Stocks.	Par.	Bid.	Asked
Citizens' National Bank.....	10	32	33
Commercial & Far. Nat. Bank.....	100	132½	140
German Bank.....	100	107	107
National Exchange Bank.....	100	191	191
National Marine Bank.....	30	37	37
National Mechanics' Bank.....	10	32	33
National Union Bank of Md.....	100	117½	120
Third National Bank.....	100	131	131

Trust, Fidelity and Casualty Stocks.

American Bonding & Trust.....	50	84	84
Baltimore Trust & Guarantee.....	100	301	311
Central Real Estate & Trust.....	50	62½	62½
Colonial Trust.....	50	29½	30½
Fidelity & Deposit.....	50	164½	164½
International Trust.....	100	123½	123½
Maryland Casualty.....	25	52½	53½
Maryland Trust.....	100	208	209
Mercantile Trust & Deposit.....	50	164	164
Union Trust.....	50	63	63½
U. S. Fidelity & Guaranty.....	100	146	147½

Miscellaneous Stocks.

G. B. & S. Brewing Co.....	100	16½	18
United Elec. L. & P. Pref.....	50	40	42
Cotton Duck Votting Trust.....	100	9½	9½
Consolidated Coal.....	100	75	81
Consolidated Gas.....	100	68½	69
Atlantic Transport.....	100	255	270

Railroad Bonds.

Atlanta & Charlotte 1st 7s, 1907.....	112		
Columbia & Greenville 1st 6s, 1916.....	119½		121½
Georgia, Car. & North 1st 5s, 1929.....	111½		112
Richmond & Danville Gold 6s, 1915.....	119		119
Seaboard & Roanoke 6s, 1916.....	110		110
Southern Railway Con. 5s, 1904.....	121		121
Virginia Midland 1st 6s, 1906.....	109		109
Virginia Midland 2d 6s, 1911.....	116		116
Virginia Midland 3d 6s, 1916.....	122½		123
Virginia Midland 5th 5s, 1926.....	116½		116½
West. North Carolina Con. 6s, 1914.....	117		120
West Virginia Central 1st 6s, 1911.....	112½		113½
Wilmington, Col. & Aug. 6s, 1910.....	113½		113½
Wilmington & Wei. Gold 5s, 1935.....	120		120
Charleston City Railway 5s, 1923.....	104½		104½
Charleston Con. Electric 5s, 1929.....	94		96
Knoxville Traction 1st 5s, 1928.....	100½		100½
Newport News & Old Pt. 5s, 1938.....	109½		109½
Norfolk Street Railway 5s, 1944.....	113½		113½
United Railways 1st 4s, 1949.....	97		97½
United Railways Inc. 4s, 1949.....	70½		70½
Seaboard 4s.....	86½		86
Seaboard 10-year 5s.....	103½		103½

Georgia & Alabama Con. 5s.....	112½		112½
South Bound 5s.....	112½		113
Atlanta Street Railway Co. 5s.....	105		105
Augusta Railway & Elec. 1st 5s.....	100		100

Miscellaneous Bonds.	Par.	Bid.	Asked
Mt. V. & Woodb'y Cot. Duck 5s.....	82½		82½
Mt. V. & Woodb'y Cot. Duck Inc.....	46½		46½
G. B. & S. Brewing 1st 3-4s.....	54		54
G. B. & S. Brewing 2d Incomes.....	42½		43½
United Elec. Light & Power 4½s.....	86		87
Consolidated Gas 6s, 1919.....	112		112½
Consolidated Gas 5s, 1939.....	113½		114½

Telephone Consolidation.

Papers have been filed at Baltimore for the consolidation of the Maryland Telephone Co. of Baltimore, the Western Maryland Telephone Co. of Carroll County and the Boyds Telephone Co. of Montgomery County. The name of the consolidated corporation will be the Cumberland Valley Telephone Co. of Baltimore City. It will have \$200,000 capital. The officers are: President, John Hinkley, Baltimore; vice-president, William D. Barnard, St. Davids, Pa.; secretary, Geo. W. Leonard, Baltimore; treasurer, Samuel R. Caldwell, Philadelphia. The directors are the officers and Thomas Foley Hiskey, Baltimore; Louis J. Burger, Baltimore; Howard E. Bokman, Baltimore; Ward R. Bliss, Chester, Pa.; Charles M. Clement, Sunbury, Pa., and Thos. J. O'Neill, Hanover, Pa. The stockholders of the old companies will hold shares in the new corporation in proportion to their present holdings.

Street-Railway Combination.

A lot of \$300,000 of the first mortgage 5 per cent. bonds of the Jacksonville Electric Co. is being offered at 97½ and interest in Boston. The total authorized issue is \$1,250,000, of which there is outstanding \$700,000. The Jacksonville Electric Co. has purchased the street railways in Jacksonville, Fla., consisting of twenty miles of single track and the plant of the Jacksonville Electric Light Co. The report for the year 1901 shows gross earnings, \$165,802; operating expenses and taxes, \$100,499; net earnings, \$65,303, out of which the interest on the bonds will have to be paid.

Charleston Consolidated.

The Charleston Consolidated Railway, Gas & Electric Co. reports for June, 1902: Gross income, \$18,528.20; 1901, \$17,012.55; fixed charges, 1902, \$12,575; 1901, \$13,167.76; net income, 1902, \$5963.20; 1901, \$3844.79; net balance profit, 1902, \$4990; 1901, \$2843.79. Net profits for the first four months of the present fiscal year, beginning March 1, 1902, after deducting operating expenses and proportion of fixed charges, taxes, licenses, sinking fund, etc., are stated by President Francis K. Carey as being \$69,609.06.

New Corporations.

A private bank has been organized at Alvarado, Texas; capital \$50,000. L. B. Truelove is president.

The People's Savings Bank has been organized at Selma, Ala., and will begin business in August; capital \$50,000.

The Blue Ridge Bank has been chartered at Greenville, S. C., with \$50,000 capital, by J. J. Cowart and Charles T. Schwing.

The American Mutual Benefit Association of Natchez, Miss., has been incorporated by A. C. Lillard, M. M. Wilkerson and others.

It is reported from Saluda, S. C., that the proposed Saluda Bank is now assured, sufficient stock having been subscribed. The capital is \$25,000.

The People's Bank of Sumner, Miss., has been chartered with \$50,000 capital. The incorporators are Z. D. Jennings, J. J. Anderson, J. D. Webb and others.

The Bank of Waverly has been incorporated at Waverly, Ky.; capital \$15,000. Among those interested are George L. Drury, W. T. Barker and P. S. Roberts.

A bank with \$15,000 capital has been organized at Salyersville, Ky. The directors are Capt. Jeff Prater, E. L. Stephens, George Carpenter, D. B. Patrick and Ike C. Adair.

The Farmers and Merchants' Bank of Siboney, Okla., has been chartered with \$5000 capital. The incorporators are Philip and J. A. Duffy and A. E. Hammond of Lawton.

The Napoleon Bank of Napoleon, Mo., has been incorporated with \$10,000 capital. The incorporators are H. H. Woestmeyer, C. F. Sabrowsky, H. H. Wulfehammer and others.

The Bank of Douglas has been organized at Douglas, Okla., with a capital of \$5000. The incorporators are John A. Murphy of Wichita, Kan.; John Murphy and C. M. Lewis of Enid.

The Oklahoma Real Estate & Improvement Co. has been incorporated at Guthrie, Okla., with \$100,000 capital, by J. M. Rhoades, William S. Turnman, C. E. Johnson and J. R. Hales.

The Bank of Stilwell of Stilwell, I. T., has been incorporated; capital \$50,000. The incorporators are C. Gamble, Connelly Harrington, J. D. Hagler, P. S. Powell and Benjamin O. Whittaker.

The Hamilton Trust Co. has been incorporated at St. Louis, Mo.; capital \$500,000. The incorporators are Wallace C. Butler, C. A. Caldwell, Albert N. Edwards, Edward Hidden and J. W. Perry.

The Bank of Norman has been incorporated at Norman, Okla., with \$25,000 capital, by C. W. Cook, G. G. Sohlburg, G. B. Stone and F. H. Thwind of Oklahoma City, and L. C. Knighton of Guthrie.

The Brunswick Building & Savings Co. has been incorporated at Lawrenceville, Va.; capital \$5000 to \$100,000. The officers are Daniel W. Brown, president; E. T. Sully, secretary; Harry C. Green, treasurer.

The Washita Valley Bank of Fort Cobb, Okla., has been chartered, with \$5000 capital. The incorporators are James Yount of Fort Cobb, Thomas Kearse of Sickles and John Korndorfer of Medford.

The Bank & Trust Co. of Walnut Ridge has been organized at Walnut Ridge, Ark.; capital \$50,000. The officers are: T. J. Sharum, president; S. Riegler, vice-president, and W. G. McClamrock, secretary and treasurer.

The Winona Building and Loan Association has been incorporated at Winona, Miss.; capital stock limited to \$100,000 in any series. The incorporators are R. A. Allison, J. B. Small, P. E. Pegues, N. T. Pegues and C. R. Kelso.

The Delaware Investment Co. has been formed at Washington, D. C., under a Virginia charter. The officers are J. H. Carter, president; R. R. Turner of Washington, secretary, and C. S. Storrs of Wilmington, Del., treasurer.

The Bank of Commerce has begun business at McHenry, Miss., with \$25,000 capital. P. H. M. Tippins is president, and S. A. Tomlinson is cashier. The institution is a branch of the Bank of Commerce of Gulfport, Miss.

The Bank of Prosperity has been chartered at Prosperity, S. C.; capital \$25,000. The incorporators are C. P. Boozer of Etheredge, D. D. Little of Pacolet, Geo. Y. Hunter, S. S. Berge, J. F. Brown and A. G. Wise of Prosperity.

The Cheraw Building and Loan Association of Cheraw, S. C., has been chartered with \$12,500 capital. The officers are: President, T. E. Wannamaker; vice-president, Edwin Malloy; secretary and treasurer, D. S. Matheson.

A charter has been issued for the Bank of Walhalla at Walhalla, S. C.; capital \$30,000. The incorporators are J. D. Verner, W. L. Verner, C. W. Pitchford, B. R.

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Lucas, C. W. Banknight, D. Oelkers, R. T. Jaynes and W. T. Stoddard.

The Portsmouth Investment & Realty Co. has been chartered at Portsmouth, Va.; capital \$5000 to \$50,000. The officers are: A. J. Phillips, president; H. L. Maynard, vice-president and treasurer; T. J. Wool, secretary and attorney.

The Prudential Trust Co. of Norfolk, Va., has been organized; capital \$25,000 to \$50,000. The officers are: Stephen A. McIntire, president; William Finkenour, secretary; Nicholas F. Lensen, treasurer. All officers residents of New York.

A national bank has been organized at Deport, Texas; capital \$25,000. The directors are J. T. Woodward, Dr. I. W. Teague, Nathan Grant, J. R. Westbrook, Dr. J. H. Moore, J. W. Carpenter and C. J. Moore. The bank will begin business October 1.

The James River Investment Co. of Norfolk, Va., has been chartered for general development and industrial enterprises, merchandising and boat-building; capital \$10,000. The officers are: Henry

[For Additional Financial News, See Pages 28 and 29.]

